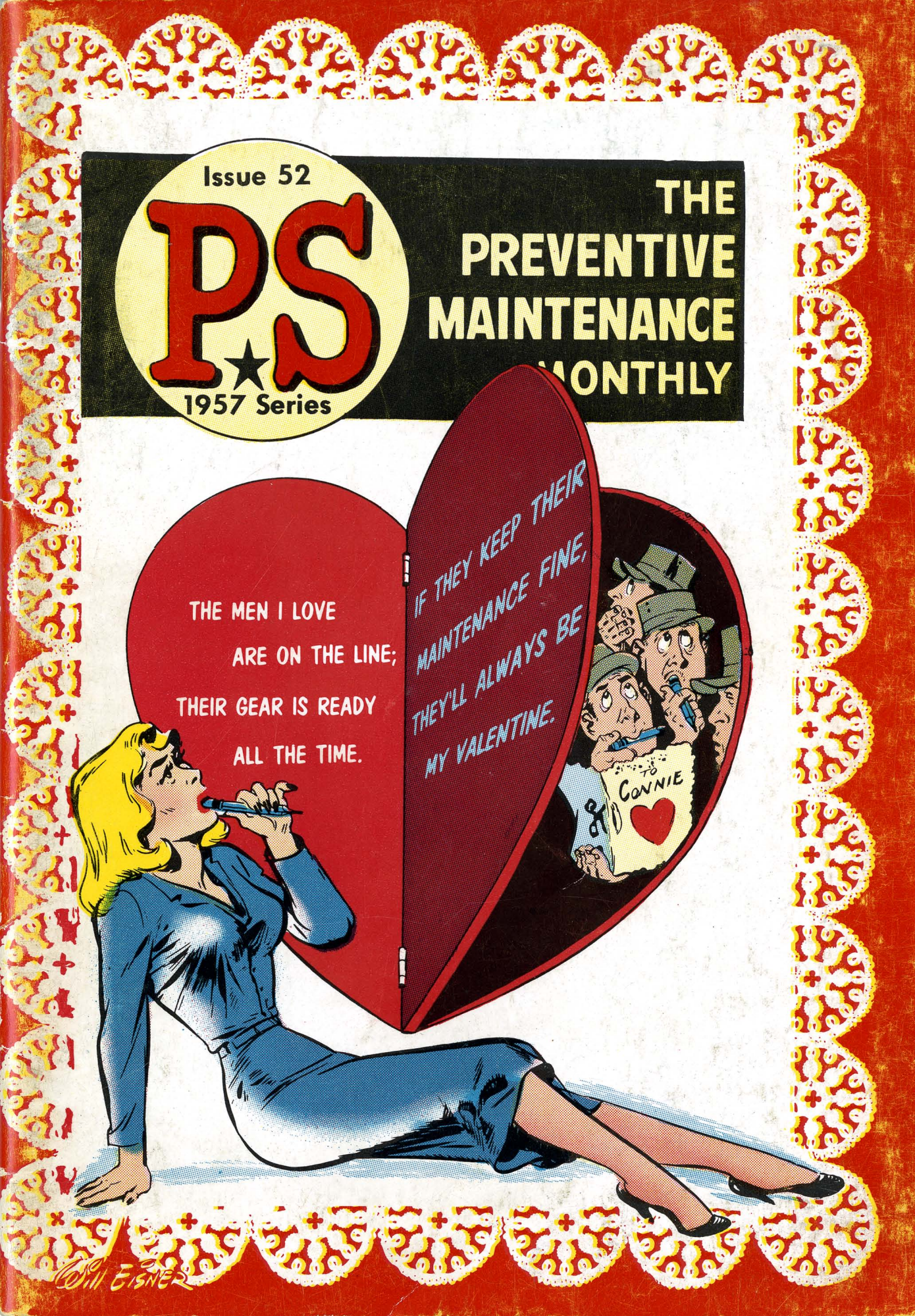
Issue 52
PS
1957 Series
THE PREVENTIVE MAINTENANCE MONTHLY
THE MEN I LOVE ARE ON THE LINE; THEIR GEAR IS READY ALL THE TIME.
IF THEY KEEP THEIR MAINTENANCE FINE, THEY'LL ALWAYS BE MY VALENTINE.
TO CONNIE
WILL EISNER

PS
THE PREVENTIVE MAINTENANCE MONTHLY

Issue No. 52 1957 Series

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LOOK Before You. . .

Dear Half-Mast,

Because some people are downright stubborn, we have two vehicles sitting here deadlined. And, unless you can answer this question for us, they're going to stay deadlined.

Here's the problem: A while back we received these two vehicles. They were **not** inspected before being signed for. Bingo—both vehicles have deficiencies that can be fixed up by the people who turned them over to us.

Now, our shop says that it's not their responsibility to fix the deficiencies—it's the responsibility of the place where the vehicles came from. The place where the vehicles came from says that it became our responsibility as soon as we signed for the vehicles —that we should have inspected these vehicles when we got them, before we signed for them.

I hope you have the answer.

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Dear Specialist T. R.,

As long as your C. O. signed for those vehicles, the responsibility is all yours—inspection or not. According to AR 735-5 (20 Dec 54), "A hand receipt is a signed document acknowledging **acceptance of responsibility** for terms of property listed thereon which are loaned or issued and are to be returned or documents produced showing other proper disposition." In other words, you accept responsibility when you sign for a piece of equipment, and that responsibility is transferred by the receipt you sign.

There's one other point—"The commanding officer of a company, detachment or similar unit is by virtue of his assignment responsible for all the property of such unit regardless of whether or not he has signed receipts for such property." This little statement, it appears, makes a signed receipt even more binding.

If a commanding officer assumes responsibility for equipment by virtue of his command alone, regardless of whether he signed for the property or not, a signed receipt certainly would make that responsibility more binding.

So, all you can do is get your boys to work on those vehicles and get them off deadline.

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Half-Mast

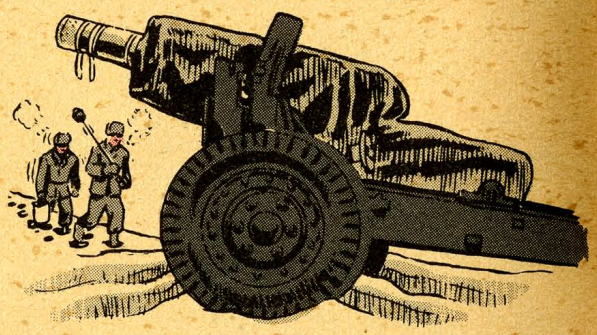
for HOT Shots in Cold Spots

These winter months are important ones for a lotta artillerymen.

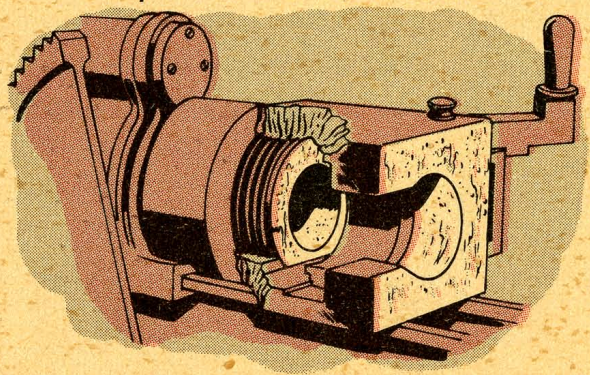
In some places . . . the temperature drops so fast and far you think the thermometer sprang a leak. The red stuff reaches the 20-below mark here and there. And that's cold.

Most of you guys in the outdoor refrigerators know how to take care of yourselves . . . the right clothes and so on. But what about your artillery pieces? Do you treat 'em right in cold and snowy weather?

If you do, then you know they should be kept protected—in a shelter if possible. Muzzle and breech covers are a must. The covers are kept tight and should be in good condition. Snow can load a barrel with a heap of flakes if the barrel has little or no protection.



It's all right to treat your weapon like a brother—up to a certain point. But keep it out of a warm shelter.



You know what'll happen if you take a weapon from the cold into a warm place. That's right . . . condensation. When that happens, your piece will look like it's come down with a fever in the middle of July, what with all the beads of water.

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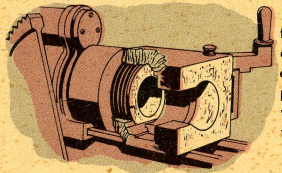

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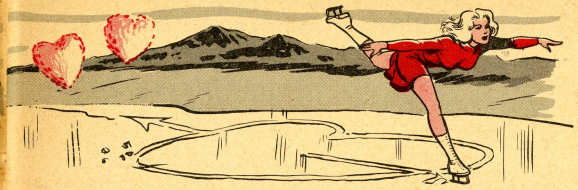
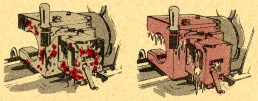
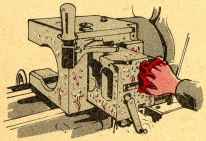


The condensation is caused by different temperatures banging heads. It happens when the temperature of an object—like an artillery piece—is lower than its new surroundings.

Those drops of water can do a coupla things. They can cause rust for one thing. Or . . . if the condensation turns to ice . . . moving parts on the weapon may get jammed. Rain and melted snow'll give you the same headaches.



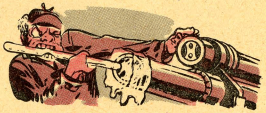


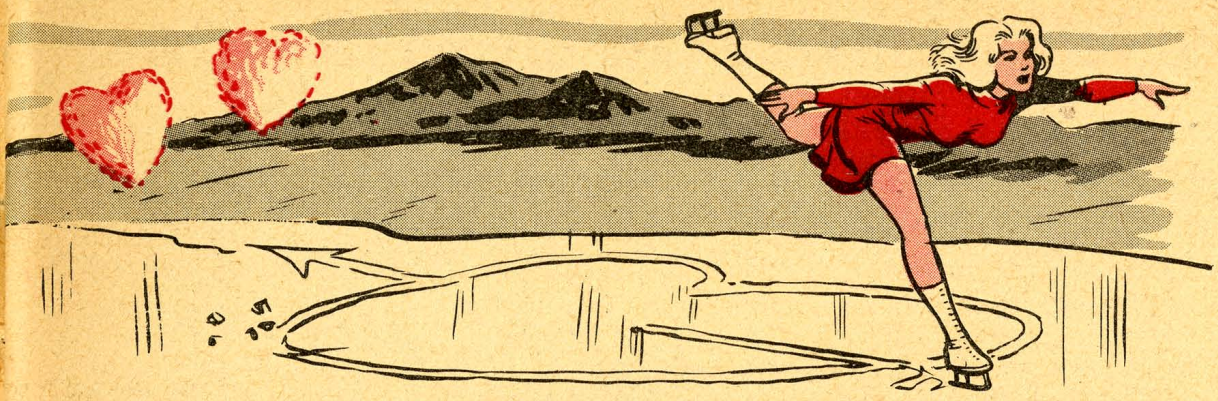
Get rid of the stuff by wiping the wet area dry. If you run into a freeze-up, use hot oil to melt the ice and then wipe dry. Spread some PL Special on the unpainted parts that have been wiped dry. Use the oil every day, but remember to first wipe away the "old" oil.

That brings us around to cleaning . . . the thing you do today to keep from doing more of tomorrow.

First off . . . store the cleaning materials in a warm spot if possible. Keep the containers full and tightly closed.

Clean the bore and chamber while they're still warm from firing. Use rifle bore cleaner . . . wipe dry and swab in some PL Special. Do this for the next two days, using warmed-up cleaner if it'll help. From the fourth day on, after firing, use PL Special every day. Don't mix anti-freeze with the bore cleaner.





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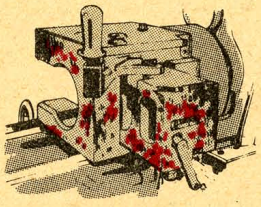

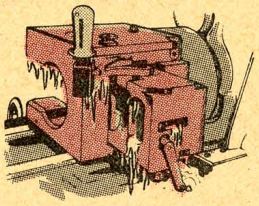

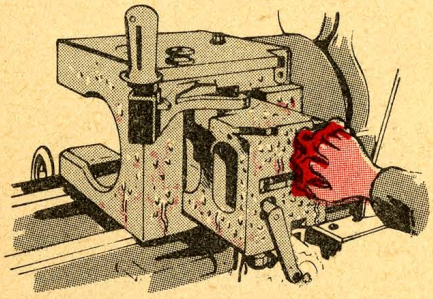

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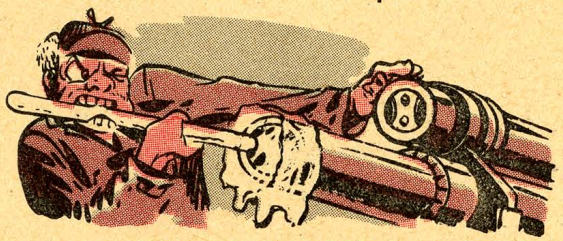
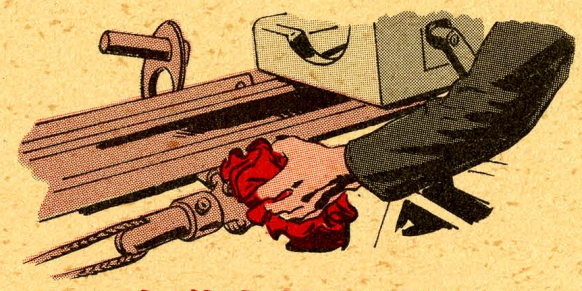


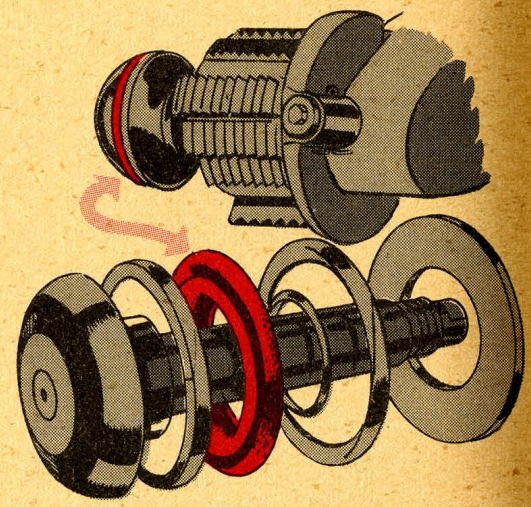
When you're operating in real cold weather—like the Arctic—there's another side to the cleaning business. That's when you make sure you have a copy of FM 70-15 at your fingertips.



Clean the breech and firing mechanism daily with dry cleaning solvent or mineral spirits. Follow with a light coat of PL Special.

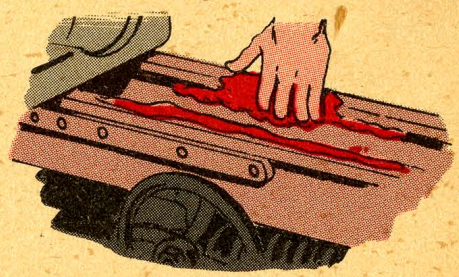
A WORD OF CAUTION:

Keep cleaning materials away from gas check pads—that is if your piece is equipped with the pad. What you do is wipe the pad dry with a clean cloth and leave it dry. Another thing . . . the asbestos covering on some pads becomes very brittle in cold weather. If the asbestos cracks . . . and the wire mesh shows through . . . get a new pad.



What about lubrication? That's where your LO comes in mighty handy. It tells you what grease and oil to use when the mercury takes a header. And you sure do use different lubes in cold weather.

As a f'rinstance . . . the LO for your weapon may say to use GAA on the cradle and gun slides. An LO for another piece may say to use PL Special.



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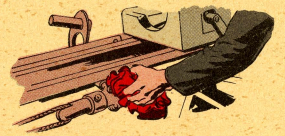

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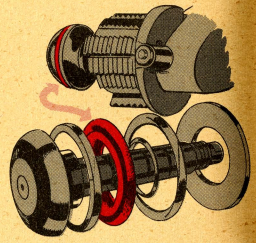

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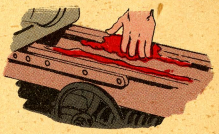
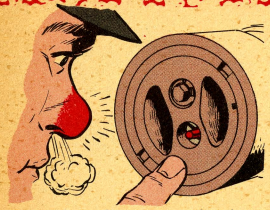




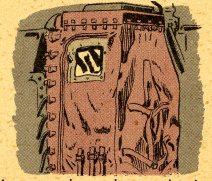
Keep a close watch on the recoil oil by checking oil index and your LO for the type to use. The piece may be a little sluggish, but it should straighten itself out after you fire a couple rounds. If it turns out you have nitrogen pressure trouble, call in the Ordnance people.

Wipe dry and lube the recoil and counter-recoil rods and variable recoil cams every day. Use a light touch with the oil.

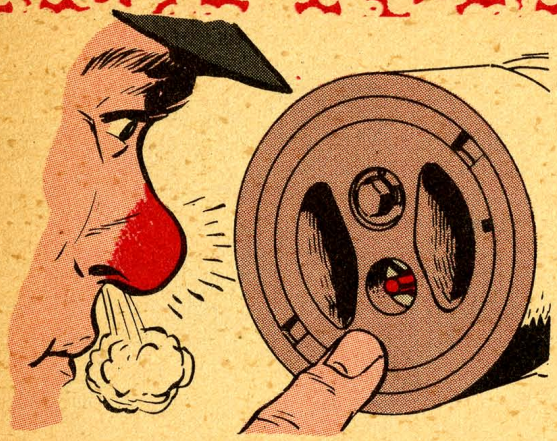
To make sure the recoiling parts aren't iced up, exercise the recoil mechanism before firing.

The electrical system on your weapon is something else that needs special care in cold weather. In weapons using power controls, radar and fire control systems, you've gotta keep the equipment covered when you're not using it. Cover panels should be in good shape if they're gonna do their job.

If the weapon has a respirator . . . open 'er all the way. Keep the respirator free of snow and ice.



You guys who work around radar and computer consoles wanna make sure the heaters work. And you should check your TM so you know how to use the heaters. Keep electrical cables protected—like wrapping or covering them with straw.



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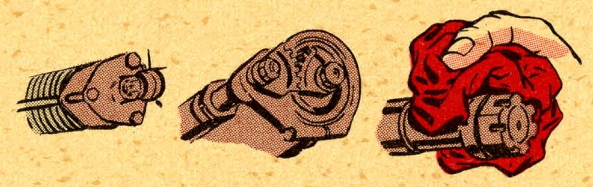

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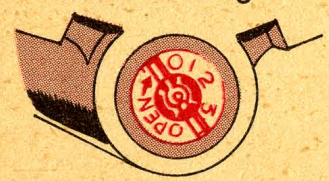

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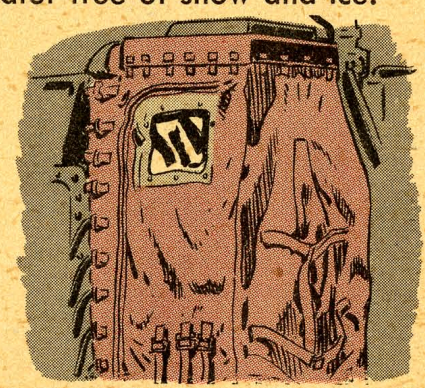

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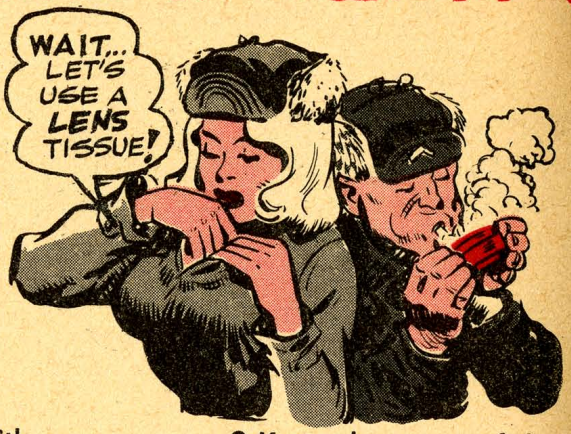
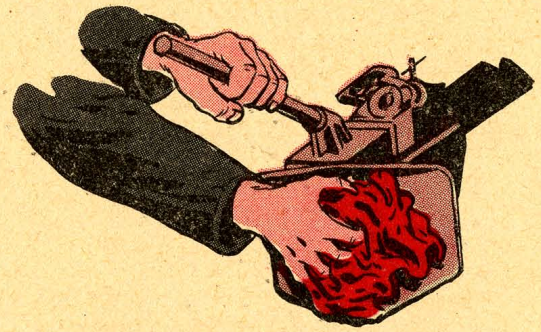
While you're working around the fire control and sighting equipment, check for ice-coated optical parts—like lenses. You'll get condensation by taking the parts from the cold into a warm spot or by breathing on 'em. Get rid of the ice by rubbing the frosted area with a lens paper that's been wet down with alcohol.

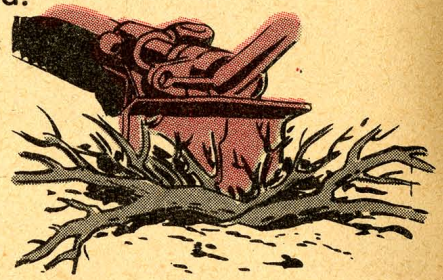


Using wet or dry cell batteries with your weapon? Keep them out of the cold when you're not operating the piece.

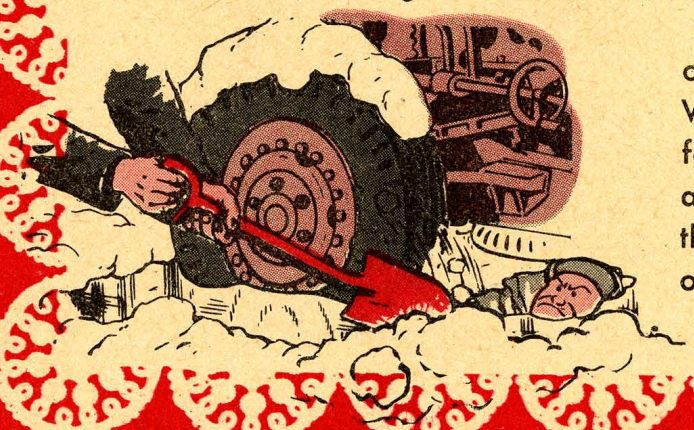


The trails and spades also need looking after. Wipe waste lube on the parts that come in contact with the ground to prevent the trails and spades freezing fast to the ground. In fact . . . use lube on any parts, except rubber, that touch the ground.

Don't stick the spades into holes until you've provided some kind of shock absorber for the recoil—like tree boughs or straw. The spades are liable to snap if hard frozen ground is used as their only cushion.



Your weapon's transport wagon, limber or bogies also need care in addition to your regular maintenance.



For one thing . . . keep the tires clean and free of ice and snow. When you start to travel, use a light foot on the gas pedal. That's so if any flat spots develop in the tires, they'll be given a chance to round out—easy like.

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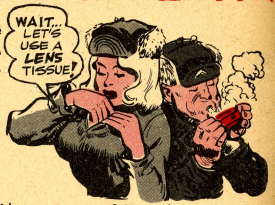

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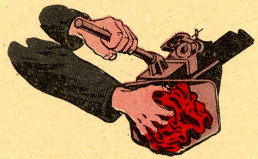

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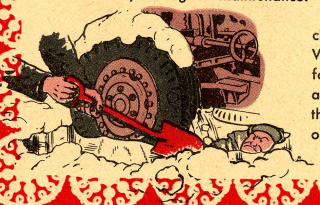

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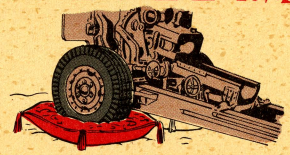

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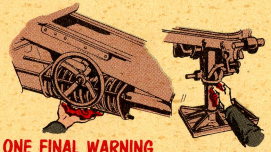
Make use of valve caps. They keep moisture out of the valve stems. And if anything'll break the stems, it's ice. Release all brakes when the weapon is parked—even for short stopovers. Then you're sure the brakes won't freeze in a set position. Use chocks to hold the wheels in place. Another thing about those brakes . . . drain water from air filters and air tanks. Do this for every eight hours of continuous travel, but not while the air brake system is under pressure. Get rid of the water between movements after you temporarily disconnect the air brake hose coupling from the towing vehicle.

There are two other spots to keep an eye on so's things won't get jammed up with ice. Keep the equilibrators well lubricated to prevent 'em from getting a coat of ice. And don't let ice or frozen mud collect on the firing jacks or their locking lugs.



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If the weapon is gonna do its job, it needs a crew—not figure skaters or skiers. So keep platforms, mounts and pedestals clear of snow and ice

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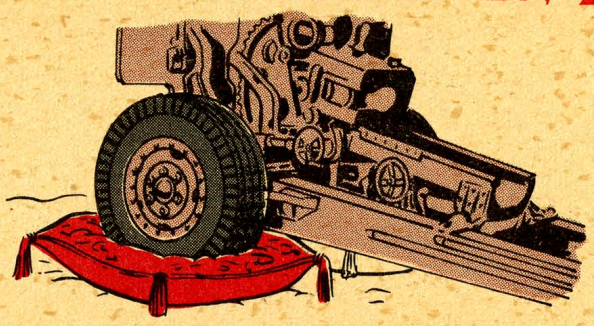

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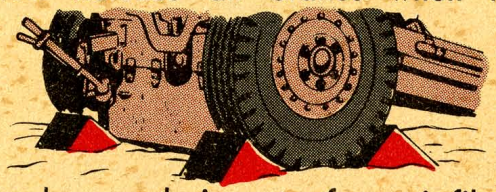

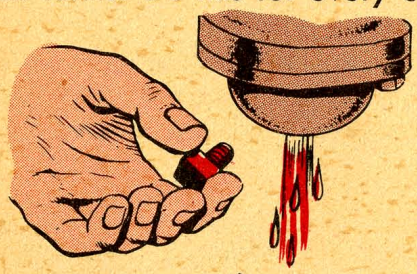

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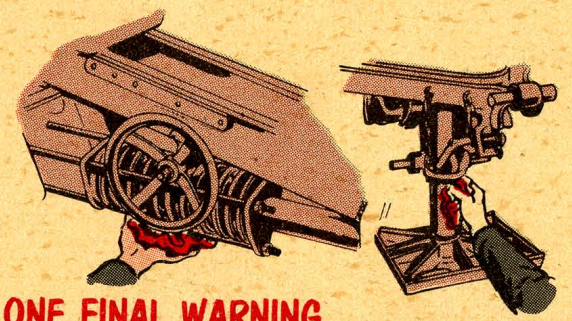

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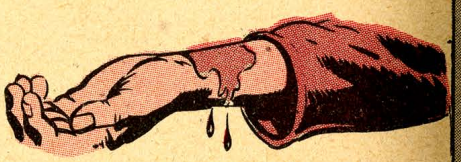
YOU'RE

HERE'S WHAT THE STUFF'S LIKE AND WHAT IT'LL DO TO YOU:

It's heavier than air. You've got to have a down-draft exhaust system if it's used in an inclosed work space.



There's more than one way of getting poisoned by it—by breathing vapors, by getting it on your skin or by swallowing it.

It affects the liver, kidneys, adrenal glands, heart, skin, lungs, digestive and nervous systems.

Symptoms are headaches, mental confusion, depression, fatigue, loss of appetite, nausea, vomiting, rapid or irregular pulse beats, fever, etc. It can conk you out—for keeps.

Never underestimate the power of a woman and never, never underestimate the power of carbon tetrachloride. They both look harmless, but listen—

Carbon tet is potent stuff, so it's time you know what you can do with it and what it can do to you. Carbon tet is very toxic (that means poisonous.)

Whenever possible use another solvent which is not as toxic when you're doing any cleaning.

Where carbon tet has got to be used as the only solvent that'll do the job (take, for instance, cleaning electrical devices where you have a fire hazard and where other solvent would play havoc with rubber, fiber, etc.) remember these things.

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YOU'RE OUT—YOU'RE SAFE

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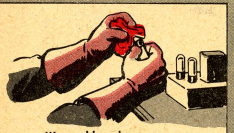
TO USE IT SAFELY, DON'T BE AFRAID OF IT— JUST RESPECT IT.



Wear rubber gloves.

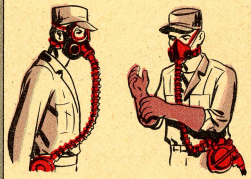
Don't inhale the vapors.

Work in an uninclosed space outdoors standing on upwind side of object being cleaned.

Work with it for very short periods of time.

If you spill some, take time out to clean it up.

Wear protective clothing; keep carbon tet off your skin.



If it's going to be used indoors, a mask with self-contained air or oxygen supply or an air-line mask should be used.

Wash thoroughly before you eat lunch and at the end of your work day. Use soap.

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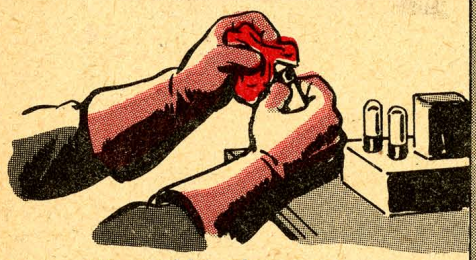

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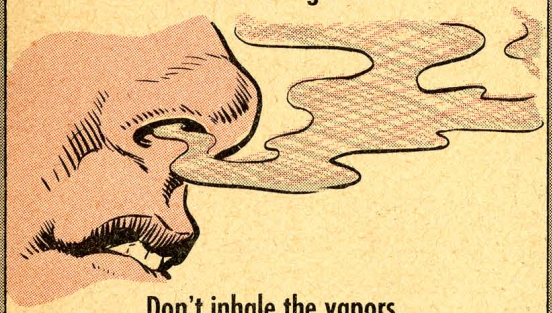

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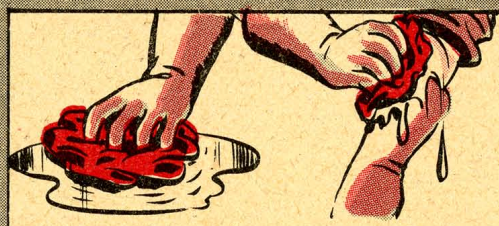

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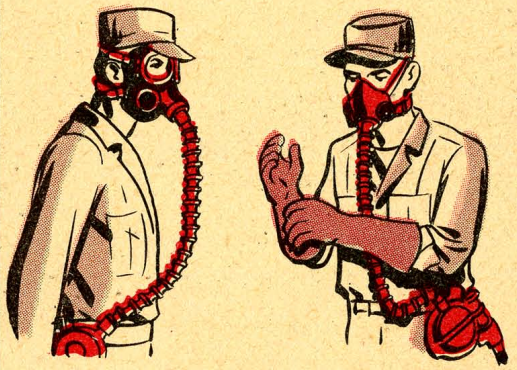

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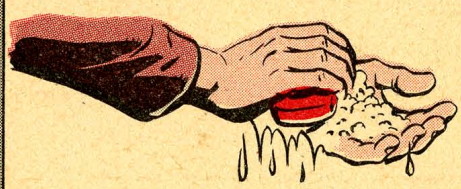

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CARBON MONOXIDE IS NO "FEMME FATALE," BUT—

IT'S DEADLY, PAL

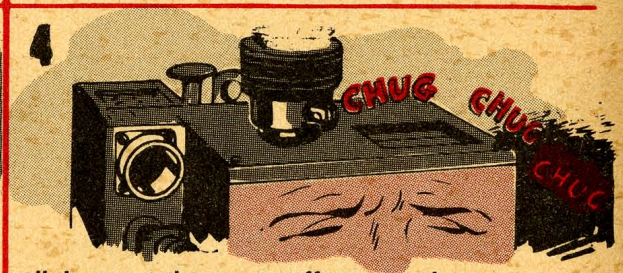
People who live with tanks and other motor vehicles come to realize sooner or later that you can't be too wary of carbon monoxide. Too bad—but sometimes it takes a tragedy to drive the fact home.

Like what happened a while back.

One chilly morning Andy was sitting in his tank. Li'l Joe was putting away to build up the low batteries. Personnel heater was running, hatches were closed to keep out the chill.

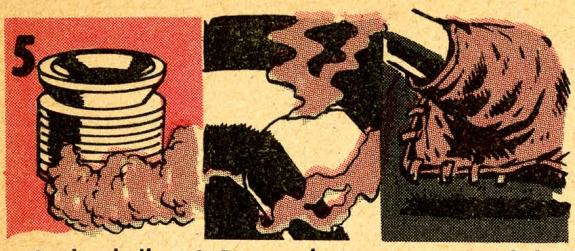
The farthest thing from Andy's mind was carbon monoxide gas. How nice it'd be to have his best girl there, alone with him in that cozy compartment.

Trouble was, though, that Andy was **not** alone. Not the "femme fatale" he was dreaming of, but a visitor even more deadly was keeping him company.



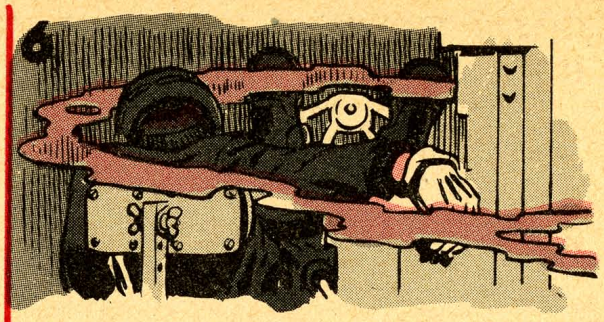
All the time Li'l Joe was puffing away, he was giving off carbon monoxide. Andy knew that burning gasoline gives off carbon monoxide. But he didn't think what might be happening.

5



Leaky bellows? Poor exhaust connections? Loose mantlet cover? There was no breeze blowing to whisk the stuff away. It hovered around the rear deck—and soon was creeping inside—seeping in around the gun, which was in travel lock—and into the driver's compartment, where Andy sat.

6



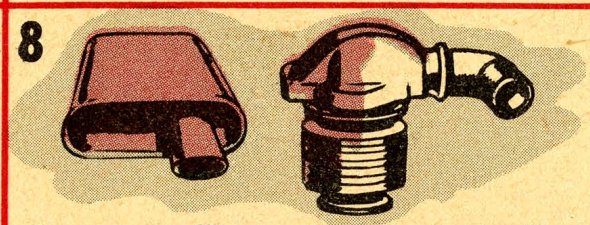
Didn't take much. With no ventilation there, the stuff went to work fast. Andy never knew what hit him.

7

That's the way carbon monoxide gets you. It's sneaky. Colorless, odorless, it gives you no warning. First thing you know you feel drowsy; then, before you know it, you feel **nothing** ever.

Main thing to do to cope with a killer like this is to keep well in mind that it's always lurking about when gasoline burns. Then you'll act accordingly.

8



Keep your mufflers, stacks, bellows and tubes in good shape. And all those connections tight. This'll keep the fumes and gases far away as possible.

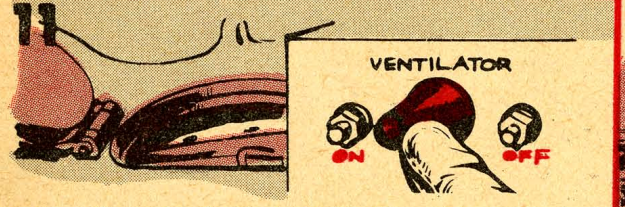
9

Keep those canvas mantlets on your turret in place and **tight.** Keep the killer **outside** where it is less likely to harm you.

10

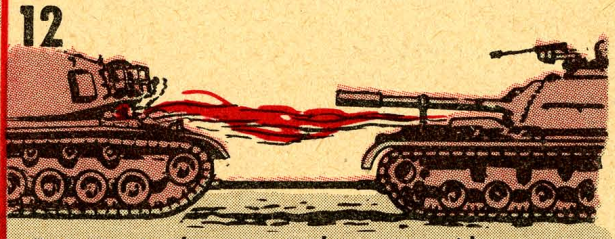
Avoid sacking out in a buttoned-up vehicle—when gasoline's burning. Especially if you're alone.

11



Bout the only thing that's fool-proof is to make sure you've got some cross ventilation. Either keep those hatches open, or make sure the turret ventilator's blowing.

12

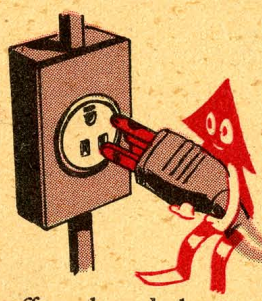


But even in the open, carbon monoxide can get you— like on a tow job —if you keep your face poked in the towing tank's exhaust too long.

A Real

Are you drilling your way to the shock of your life? You are if you kick electricity in the face by not grounding equipment.

When you're using something like a drill, some of the electricity may find its way to the housing instead of where it should go. The juice is going to look for a way that gives it the least trouble...what they call the path of least resistance. Without a standard ground, your body takes over as the way for the current to get to mother earth. That can be awful reVOLTING.

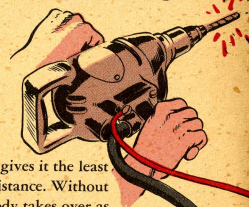


If your electric hand tools have a cord plug with three prongs...when you go to plug in your tool, pick out a three-hole receptacle—one which has a special slot for the safety ground. It's bad business (and dangerous) to break off or bend that ground prong so's the plug'll fit a standard two-hole receptacle. This leaves your tool's frame ungrounded.

If you run into a two-hole receptacle, get yourself an adapter—like the Engineers have under FSN 5935-243-6764. The adapter has two prongs, but also has three holes for the three-prong plug. You fasten the safety ground wire on the adapter to the screw in the receptacle cover.

If the cord plug on your electric tool has only two prongs, there ought to be a safety ground wire coming out from the plug's side. It ought to have either a clamp, prong or a "U"-shaped terminal. When plugging that type into a receptacle, put the safety ground wire into the safety ground slot if the receptacle has one, or clamp it to or put it under the screw in the receptacle cover.

A Real Shocker



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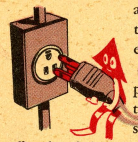

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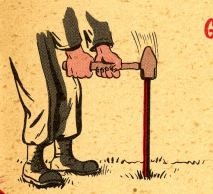


GROUND THAT EQUIPMENT PRONTO

All electrical equipment, like drills and motors, call for a safety ground. If yours doesn't have one, make one by running a length of wire from the equipment to the receptacle, metal conduit, water pipe or an iron rod driven at least four feet into the ground.

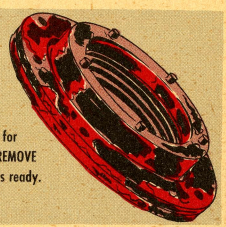
TANKERS TAKE HEED—

Gummy Oil-Seal

One of these days you may unwrap a new roadwheel oil-seal (G254-7364672) for your M48 tank and find it covered with a cosmoline-type preservative instead of the usual coat of light grease. Hold it—that seal won't be fittin' for use till it's well cleaned and properly lubed.

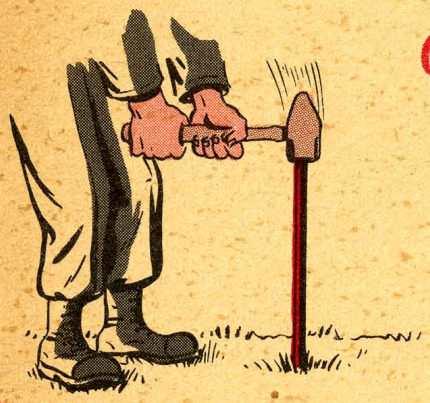
This delicate de-greasing job takes lots of time, patience and hand-work. It goes like this:

Soak seal in dry cleaning solvent (FSN 6850-281-1985, 1 gal) until preservative is completely removed. You can also use mineral spirits or naphtha (aliphatic, Specification TT-N-95A) to soak it in. Wipe seal off with clean rags. Rinse off in clean solvent or whatever degreaser you're using. Dry seal by shaking it carefully. Wrap it in clean cloth and let it sit in fresh air for awhile to finish drying. NO AIR PRESSURE DRYING, PLEASE, TO REMOVE ALL SOLVENT. Cover the seal thoroughly with OE-10, and she's ready.



Steam cleaning's not healthy for this cleaning chore. Stick to the above prescription and you've got yourself a good oil-seal.

Shocker



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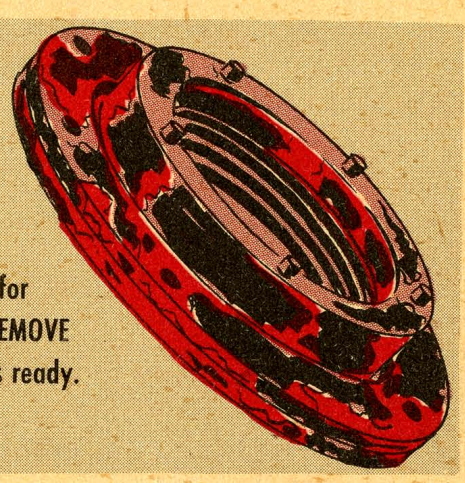

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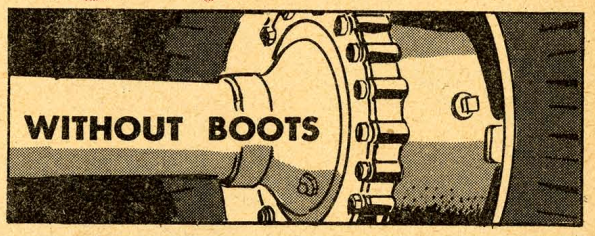
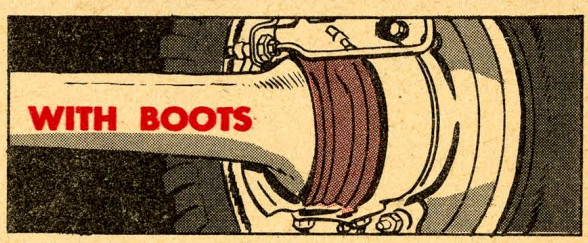
Rusty Joints

The CV joint bell housings on your M-series vehicles fall into two classes—those that have boots and those that don't.

The boots on your G742 2½-ton trucks and those on your G744 5-ton trucks are there for one reason—to protect those bell housings against rust, dirt, mud, water and grease. These highly-machined parts, you see, are exposed to everything bad roads and bad weather can dish out.





Those boots aren't going to be much good unless they're kept clean. When grease, dirt and mud get on 'em and cake, the boots can start cracking and cause all sorts of trouble to those bell housings. They've got to be clean, which means a check and a wiping once every so often. So, get on it, huh?

Now, those other trucks which don't have boots covering those bell housings—your G740 and G758 Jeeps, the G741 ¾-ton trucks and the G749 2½-ton trucks—can really blow their joints. These have felt wipers protecting them. You're OK when your vehicle's running, because the felt wiper moves back and forth over the highly-machined surface. The bell housings have a coating of GAA on them which the wiper spreads over the surface, helping to stop rust. The housing may get discolored, but you can get this stuff off with a rag.

The trouble usually comes when the vehicle stands idle for a time. The felt wiper can't move and distribute the grease film so moisture gets a chance to attack the metal through any opening in the grease film.

When you check out your bell housings and find very light surface rust on them, you can get it off by using some steel wool, a crocus cloth or a buffing wheel.

Never—but never—use an air hose to remove dust from those housings. The force of the air can throw foreign stuff under the felt, which could score the machined surface.

And, after you're all done, make sure that bell housing is protected by a light coat of GAA.

Remember: A nip in the bud is worth two when she rusts.

Get Hep to The Joint

Heard a fella talking the other day about his vehicle actin' like it was doin' the rock'n roll on a beat-up road. What he didn't know was that some of the locking wire keeping important bolts in place was not doing its job. They were the little causers of his unexpected rock —which could throw him into a roll.

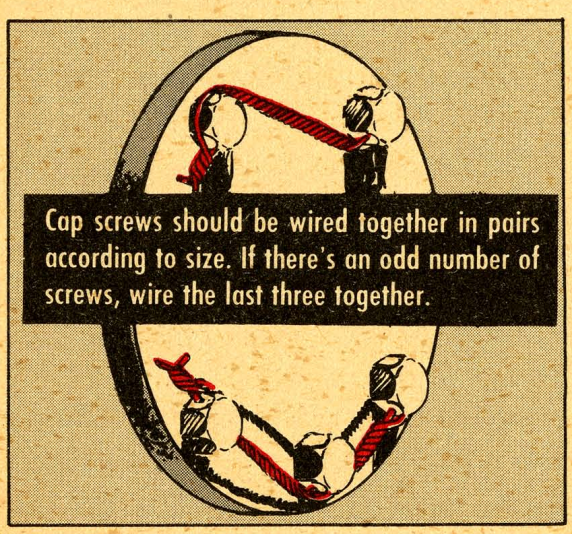
Step right up and listen to what can happen when locking wires are missing or aren't wired right.

First off, those assemblies that need that wire may swing and sway. This may lead to binding, which, in turn, may cause failure or give you performance that's not up to par.

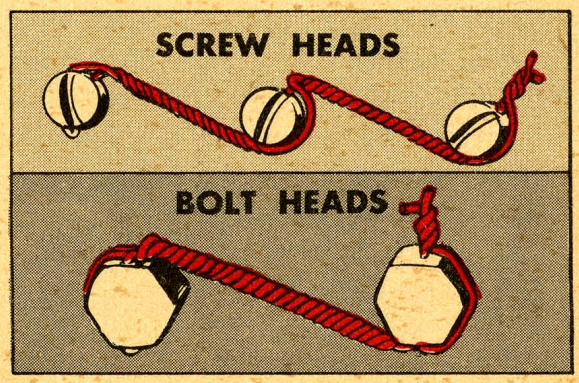
And that's not all—in a tank a failed universal joint incorrectly safety-wired may work loose and damage fuel tanks, transmission or batteries.

What's the answer? Take a look at these pictures; they'll show you how locking wires should be put thru attaching bolts. When it's done this way, if one bolt works loose it'll be stopped by the tightening action on another bolt.

In the two cases above the safety wire goes over the head while in the two cases below the safety wire goes around the head. Safety methods shown are for right hand threads—left hand opposite.

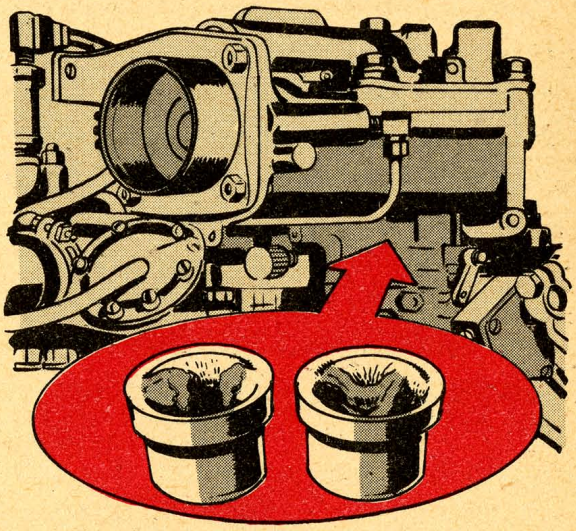


Cap screws should be wired together in pairs according to size. If there's an odd number of screws, wire the last three together.



MELTING POTS

Some higher echelon shops are finding the secondary venturis in the carburetors of the G744 5-ton trucks melted—just as if they had been hit by red hot lava. The trouble may be with the way some drivers are handling that baby.

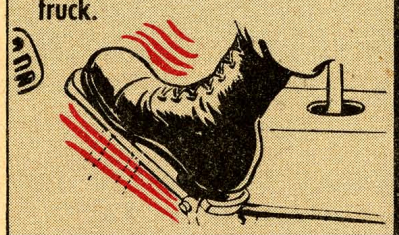


DIESELING, COLD STARTS AND BACKFIRES CAUSE SECONDARY VENTURI TO MELT.

When a guy starts a cold engine and suddenly stamps his clodknocker down on the accelerator, a backfire through the carburetor will often set fire to the fuel in the carburetor venturi and the intake manifold. If he tries to start his engine right after this happens, more oxygen and fuel is fed to the burning mixture in the carb, sending a hot flame through the venturi. One venturi plus a bunch of hot stuff could equal one melted venturi.

YOU CAN HELP STOP COLD ENGINE BACKFIRING BY DOING THESE THINGS...

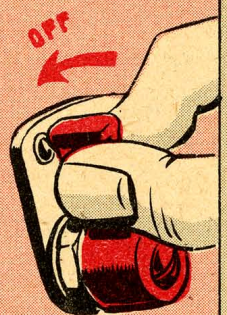
FIRST, don't pump your accelerator when you start the truck.



SECOND, let your truck warm up before moving her. This way you'll be sure that she won't stall and you won't have to start her again.

THIRD, depress your accelerator slowly. **Never** goose her.

NOW, if your engine does happen to backfire, turn your ignition **OFF** and let her sit for at least 30 seconds. This'll give that burning mixture inside your carburetor plenty of time to burn itself out without adding more fuel to the fire.



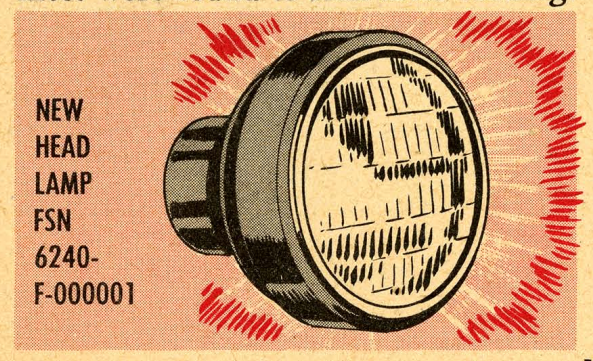
Dieseling is another thing that could be hurting those carburetors. Your truck may come equipped with an anti-dieseling device. If not, MWO Ord G744-W23 (28 Sept 55) tells Ordnance to put one on for you immedjiately. Until you get this gimmick put on your truck, tho, let that engine idle for a time before shutting her down.

Limp Lights

Those incandescent head lamps (FSN 6240-299-6930, Ord Stock No. H104-0451988) you'll find on most of your M-series trucks are supposed to be sealed, but reports flowing in tell of strange things happening inside them.

Five things seem to be going wrong with these babies—

First, they have a moisture leak and a gray fog of condensation forms on the lenses. Second, some have weak gasket seals, which lets water leak into the reflectors. Next, a few have cracked lenses, which also lets water in. Fourth and fifth, some have blistered lenses and most were found to leak after fording.



A new lamp is being put into the supply system—a lamp that will stay sealed. But the older lamps will be issued until they're exhausted and then you'll be getting the new ones.

Now, here's what to do. If you come across any of these bad head lights, just throw them away—never mind turning 'em back in with a UER. The design people already know about the trouble. Then, make yourself out a requisition using the stock number for the new head lamp, which is FSN 6240-F-000001. No doubt you'll be issued the old lamp, because there are so many of them. But use them and as they keep going bad, you just keep throwing them away and keep sending in requisitions.

The vehicles these lamps go for are your G740 and G758 Jeeps, your G741 ¾-ton trucks, your G749 2½-ton trucks, your G744 5-ton trucks and your G792 10-tonners.

It's oil right

Some guys have been keeping their fingers crossed every time they add a quart of oil to their vehicles, especially those commercial jobs.

They take a look in the manufacturer's manual and find that their crankcases call for SAE 20 oil. But the Army doesn't have SAE 20 oil—just OE 10, OE 30 and OE 50. So, these questions crop up. Am I authorized to use something besides the recommended oil and, if so, will the manufacturer stand good on his warranty if something goes wrong?

The answer to these questions are right in TB Ord 378 (17 Oct 51). Para 3 of this TB says, "In all instances wherein the manufacturer's instruction manual for the vehicle specifies the use of SAE 20 or SAE 20W engine oil, **SAE 10 will be used.**" It's been established that you can go ahead and substitute OE 10 for SAE 20, and there'll be no sweat.

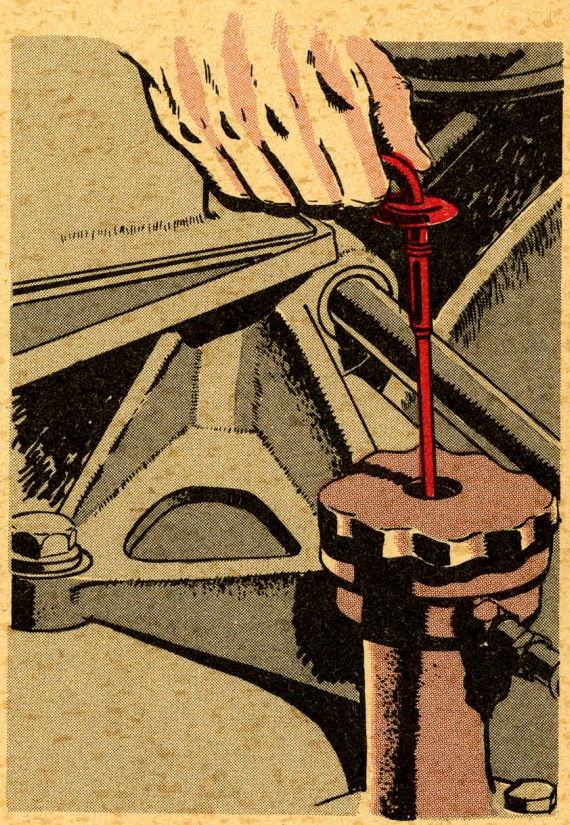
So, in a nutshell, when you find that SAE 20 is called for, substitute OE 10. If something goes wrong, you're safe —TB Ord 378 is your authority.

Yo-yo

If your G749 2½-ton Hydra-Matic transmission oil level starts acting like a bouncing ball, best check that truck's idling RPM.

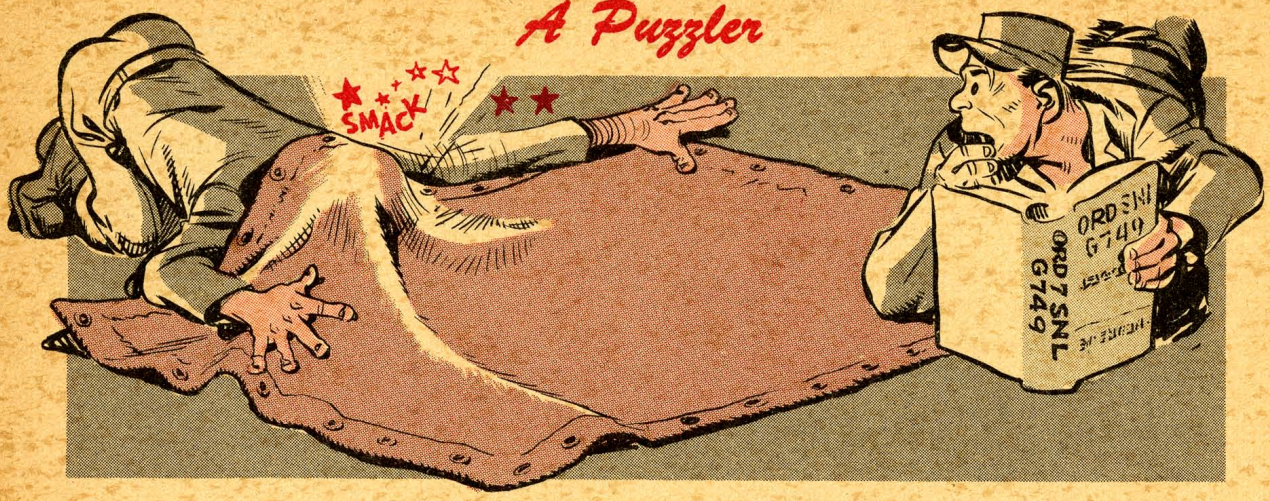
Been some strange tales of that level showing up **too full** although the driver knew the oil was at the correct level and he was checking it right—with the Hydra-Matic in F-1 High Range and the transfer engaged.

Story is that when you go to check your level and your truck's revving faster than normal, that oil will splash up against the dipstick and give you a false reading.



So, why not save yourself some perplexes. Make sure your truck's idling at 375 RPM's like TM 9-8024 (Oct 55) says when making that lube level check.

A Puzzler



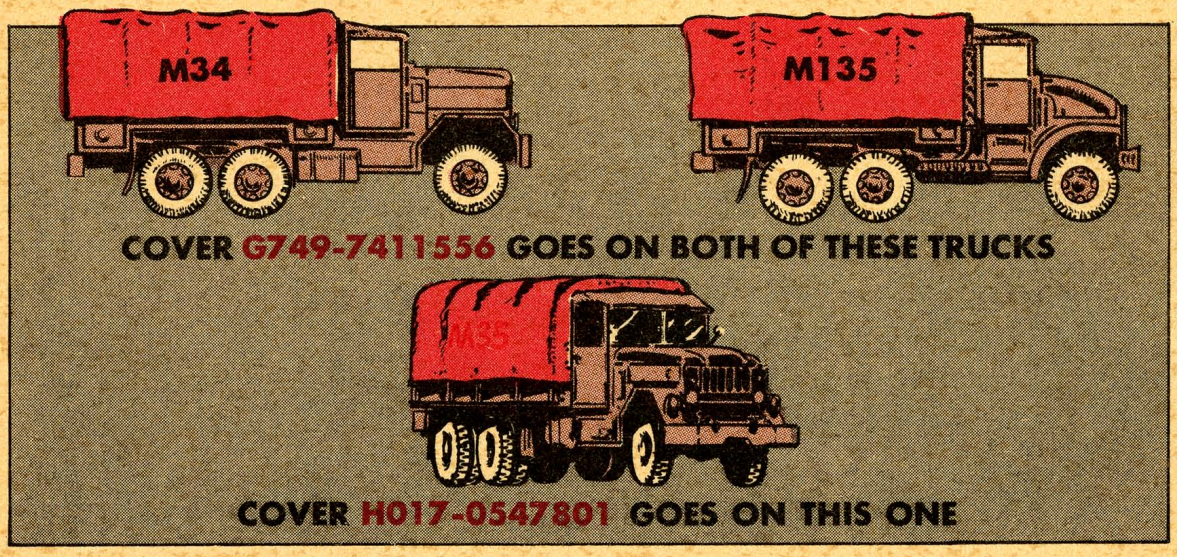
Which goes where, and when it's there is it where it should be? Puzzling, huh? Well, that's what you're going to run up against if you don't know all the facts on the body canvas for your M34, M35 and M135 2½-ton trucks.

If you'll look in your Ord 7 SNL G749 (July 55), you'll see under Group 2201 that Cover, body, assembly H017-0547801 for the M135 truck is replacing Cover, body, assembly G749-7411556. Hold it! It's a misprint; you'd better make a special note.

First off, Cover H017-0547801 and Cover G749-7411556 are **not** interchangeable. And, for that matter, Cover G749-7411556 is **not** in exhaust status like the Ord 7 says.

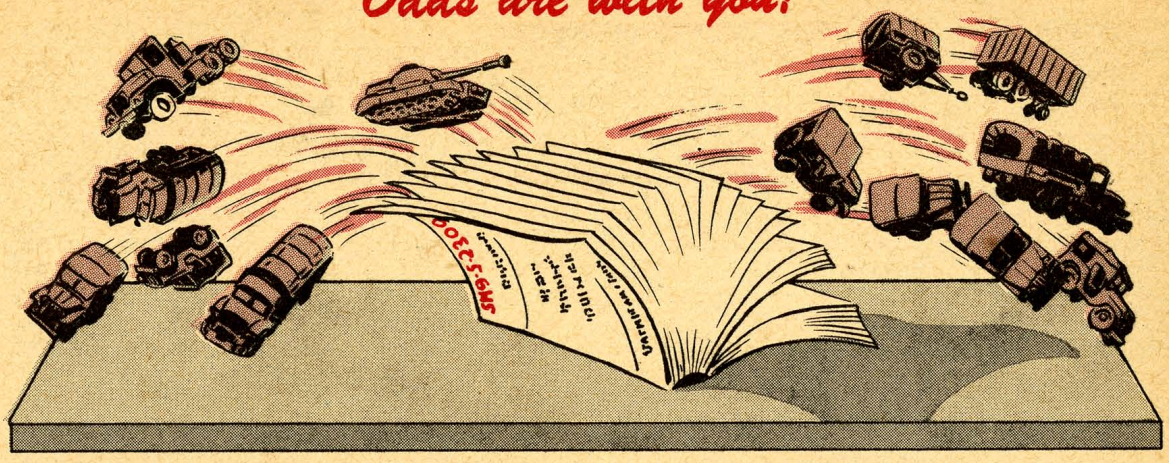
So get the correct number down when you go to order the canvas and put on your requisition the type truck the tarp must fit.

THE WAY IT STACKS UP IS LIKE THIS:



The M35 has a body that's 8 inches wider than the M34 and M135. This is why the tarps are not interchangeable.

Odds are with you!



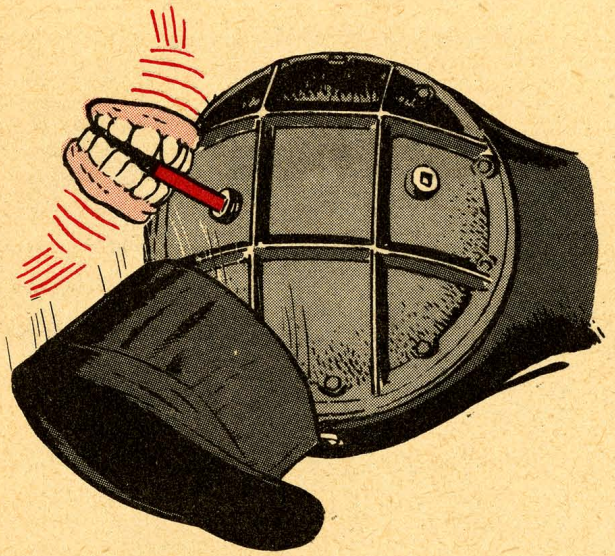
Six will get you 820! Sounds like a good deal! It is! Where can you get in on a deal like this?

It's mighty easy. Take, for instance, your Supply Manual 9-5-2300. It only has six numbers, but if you'll take a gander thru this manual you'll find your motor vehicles, trailers, and cycles are listed by number, also alphabetically. That means you can find 820 Federal stock numbers in this one volume.

That's not all! There are 355 pictures of autos, trucks, tractors, trailers and tanks.

If you've learned to depend upon your Ord 3 SNL G-1 for the stock numbers and pictures of your vehicles, then you'd better get a copy of SM 9-5-2300 (Dec 55), because it supersedes your Ord 3 SNL G-1.

A new turn

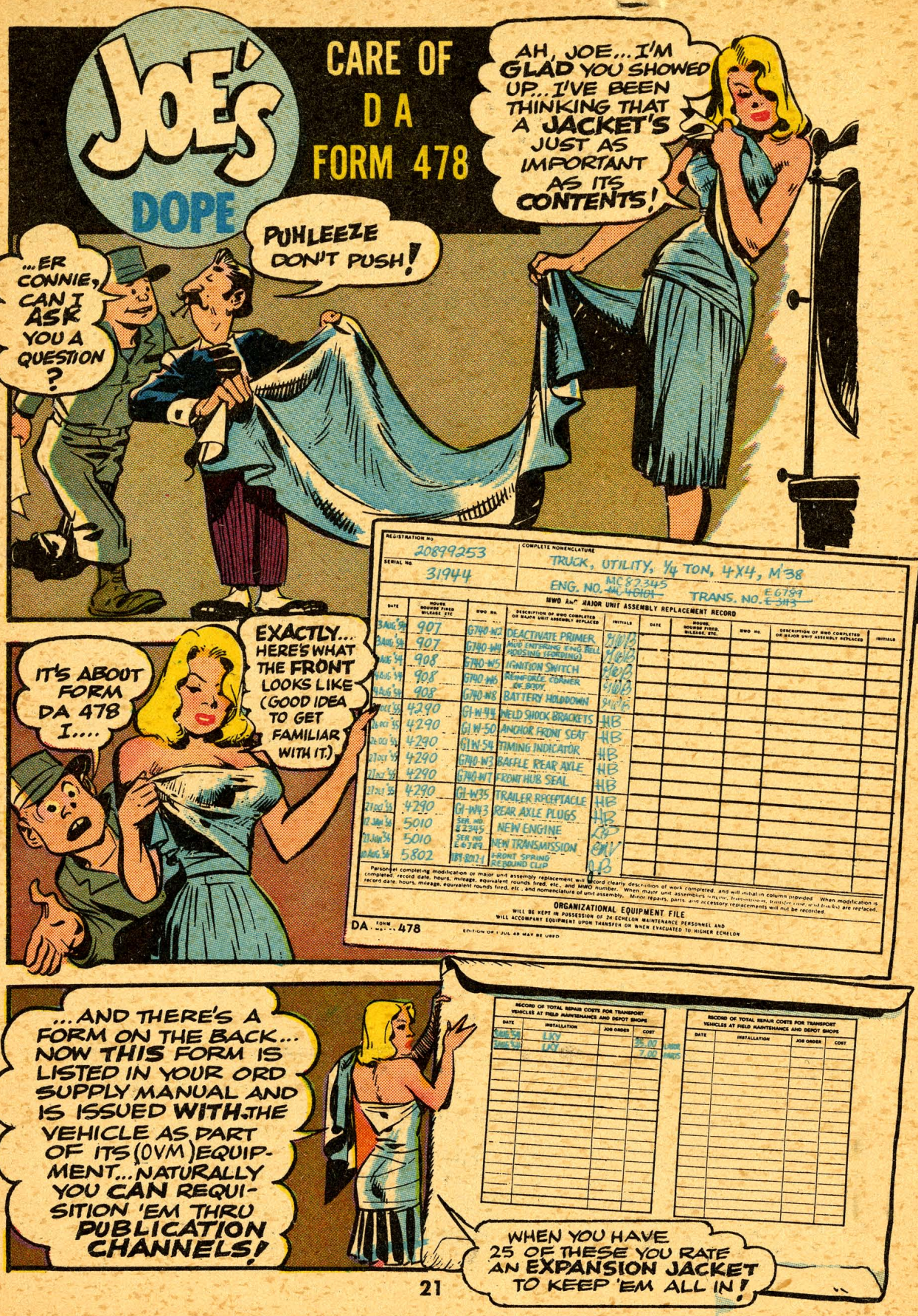


So you've been fussin' and fumin' because you don't know what to use to turn that differential plug wrench (Ord Stock No. 41-W-1962-100, FSN 5120-708-3302) when working on your G749-series 2½-ton trucks.

Make a note of these facts and figures so you can lay your hands on the equipment you'll need to turn that plug wrench:

Wrench, **open end adjustable:** 1⅛-in jaw opng, 10 in lg., Ord Stock No. 41-W-487 (FSN 5120-449-8083). The gadget wasn't mentioned in your Ord 7 SNL G749 but is going to be added.

It'll pay to get it as soon as possible —you'll find it's handy for a lotta other jobs.


JOE'S DOPE
CARE OF DA FORM 478
AH, JOE... I'M GLAD YOU SHOWED UP... I'VE BEEN THINKING THAT A JACKET'S JUST AS IMPORTANT AS ITS CONTENTS!
PUHLEEZE DON'T PUSH!
...ER CONNIE, CAN I ASK YOU A QUESTION?
IT'S ABOUT FORM DA 478 I....
EXACTLY... HERE'S WHAT THE FRONT LOOKS LIKE (GOOD IDEA TO GET FAMILIAR WITH IT.)
REGISTRATION NO. 20899253
SERIAL NO. 31944
COMPLETE NOMENCLATURE TRUCK, UTILITY, 1/4 TON, 4X4, M'38
ENG. NO. MC 82345 ~~MC 40101~~
TRANS. NO. E 6789 ~~E 3113~~
MWO AND MAJOR UNIT ASSEMBLY REPLACEMENT RECORD
DATE | HOURS, ROUNDS FIRED, MILEAGE, ETC. | MWO No. | DESCRIPTION OF MWO COMPLETED OR MAJOR UNIT ASSEMBLY REPLACED | INITIALS
3 AUG '54 | 907 | G740-W2 | DEACTIVATE PRIMER
3 AUG '54 | 907 | G740-W4 | MUD ENTERING ENG. BELL HOUSING (FORDING)
4 AUG '54 | 908 | G740-W5 | IGNITION SWITCH
4 AUG '54 | 908 | G740-W6 | REINFORCE CORNER OF BODY
4 AUG '54 | 908 | G740-W8 | BATTERY HOLDDOWN
26 OCT '55 | 4290 | G1-W-44 | WELD SHOCK BRACKETS | HB
26 OCT '55 | 4290 | G1-W-50 | ANCHOR FRONT SEAT | HB
26 OCT '55 | 4290 | G1-W-54 | TIMING INDICATOR | HB
27 OCT '55 | 4290 | G740-W3 | BAFFLE REAR AXLE | HB
27 OCT '55 | 4290 | G740-W7 | FRONT HUB SEAL | HB
27 OCT '55 | 4290 | G1-W35 | TRAILER RECEPTACLE | HB
27 OCT '55 | 4290 | G1-W43 | REAR AXLE PLUGS | HB
12 JAN '56 | 5010 | SER. NO. 82345 | NEW ENGINE | LP
27 JAN '56 | 5010 | SER. NO. E 6789 | NEW TRANSMISSION | CMV
10 AUG '56 | 5802 | 189-8012-1 | FRONT SPRING REBOUND CLIP | HB
Personnel completing modification or major unit assembly replacement will record clearly description of work completed, and will initial in column provided. When modification is completed, record date, hours, mileage, equivalent rounds fired, etc., and MWO number. When major unit assemblies (engine, transmission, transfer case, and trucks) are replaced, record date, hours, mileage, equivalent rounds fired, etc., and nomenclature of unit assembly. Minor repairs, parts, and accessory replacements will not be recorded.
ORGANIZATIONAL EQUIPMENT FILE
WILL BE KEPT IN POSSESSION OF 24 ECHELON MAINTENANCE PERSONNEL AND WILL ACCOMPANY EQUIPMENT UPON TRANSFER OR WHEN EVACUATED TO HIGHER ECHELON
DA FORM 478
EDITION OF 1 JUL 48 MAY BE USED
...AND THERE'S A FORM ON THE BACK... NOW THIS FORM IS LISTED IN YOUR ORD SUPPLY MANUAL AND IS ISSUED WITH THE VEHICLE AS PART OF ITS (OVM) EQUIPMENT... NATURALLY YOU CAN REQUISITION 'EM THRU PUBLICATION CHANNELS!
RECORD OF TOTAL REPAIR COSTS FOR TRANSPORT VEHICLES AT FIELD MAINTENANCE AND DEPOT SHOPS
DATE | INSTALLATION | JOB ORDER | COST
3 AUG '54 | LKY | | 35.00 LABOR
3 AUG '54 | LKY | | 7.00 PARTS
RECORD OF TOTAL REPAIR COSTS FOR TRANSPORT VEHICLES AT FIELD MAINTENANCE AND DEPOT SHOPS
DATE | INSTALLATION | JOB ORDER | COST
WHEN YOU HAVE 25 OF THESE YOU RATE AN EXPANSION JACKET TO KEEP 'EM ALL IN!

ON THE FRONT

1 ...HERE YOU PUT THE **REGISTRATION**, AND 2 THE **SERIAL NUMBER**.... THIS WILL MAKE IT **EASY** TO TELL AT A GLANCE **WHICH** JACKET FILE BELONGS TO **WHICH** VEHICLE!

ITEM 3 ... AS IT SAYS... BUT **DON'T** USE NICK NAMES (JEEP) OR ABREVIATIONS (¼ TON) ...IF YOU **DON'T** KNOW THE PROPER NAME... LOOK IT UP IN ITS TM, SNL, OR ORD 1 (QM1, ENG1, CHEM1)

In space 4 put the engine and transmission numbers since some MWO's and TB's apply only to vehicles with certain serial numbers, it'll save maintenance time identifying it.

REGISTRATION No.	COMPLETE NOMENCLATURE
1 20899253	3 TRUCK, UTILITY, ¼TON, 4x4, M38
SERIAL No. 2 31944	4 ENG. NO. ~~MC 40101~~ MC 82345 TRANS. NO.

When you put in a new engine and/or a new transmission . . . make sure you cross out the old numbers and put in the new.

HERE'S HOW THE MWO'S AND MAJOR UNIT REPLACEMENTS ENTRIES ARE MADE

5 DATE:

...Means when you did the MWO or replaced the major unit

6 HOURS:

. . . . Means the number of hours or miles the equipment has been operated.

ROUNDS FIRED

. . . is for artillery and mileage is for vehicles

7 DIRECTIVES:

Here you put in the number of the MWO or T B that allowed you to do the work . . . or if you've installed a new engine, or any other MAJOR part that has a serial number, put it in here... (MAJOR PARTS ONLY).

8 HERE YOU DESCRIBE THE **UNIT** OR **MODIFICATION** AND TRY TO USE THE **NOMENCLATURE** AS IT **APPEARS** IN YOUR TM, MWO, OR TB.

9 AND HERE PUT YOUR **INITIALS** AFTER YOU'VE FINISHED!

MW[illegible]D MAJOR U[illegible]SEMBLY REPLACEME[illegible]

5 DATE	HOURS, ROUNDS FIR 6 MILEAGE, ET	MWO 7	DESCRIPTION OF MWO COMPLE 8 OR MAJOR UNIT ASSEMBLY REPL	INI 9	DATE	HOU ROUND MILEA
3 AUG. '54	907	G740-W2	DEACTIVATE PRIMER	JWB		
3 AUG. '54		G740-W4	MUD ENTERING ENG. BELL HOUSING (FORDING)	JWB		
4 AUG. '54		G740-W5	IGNITION SWITCH	JWB		
4 AUG. '54		G740-W6	REINFORCE CORNER OF BODY	JWB		
4 AUG. '54			BATTERY HOLDDOWN	JWB		
			REAR AXLE PLUGS	[illegible]		
12 JAN '56	[illegible]	SER. NO. 82345	NEW ENGINE	RP		
27 JAN '56		SER. NO. E 6789	NEW TRANSMISSION	BMV		
10 AUG. '56	[illegible]	TB9-8012-1	FRONT SPRING REBOUND CLIP	JB		

ALSO **INCLUDE** THE TB'S NUMBER IF IT TELLS YOU TO **CHANGE** A PART!

Personnel [illegible] modification or major unit assembly replacement will record clearly description of wor[illegible] completed, re[illegible] hours, mileage, equivalent rounds fired, etc., and MWO number. When major unit as[illegible] record date, ho[illegible]age, equivalent rounds fired, etc., and nomenclature of unit assembly. Minor repairs, pa[illegible]

ORGANIZATIONAL EQUIPMENT FI[illegible]

WILL BE KEPT IN POSSESSION OF 2d ECHELON MAINTENANCE
WILL ACCOMPANY EQUIPMENT UPON TRANSFER OR WHEN EVACUATI[illegible]

DA FORM 1 MAY 53 47

EDITION OF 1 JUL 48 MAY BE USED.

ON THE FRONT

1 ...HERE YOU PUT THE **REGISTRATION** AND 2 THE **SERIAL NUMBER**.... THIS WILL MAKE IT **EASY** TO TELL AT A GLANCE **WHICH** JACKET FILE BELONGS TO **WHICH** VEHICLE!

ITEM 3 ... AS IT SAYS ... BUT **DON'T** USE NICK NAMES (JEEP) OR ABBREVIATIONS (¼ TON) ...IF YOU **DON'T** KNOW THE PROPER NAME... LOOK IT UP IN ITS TM, SNL, OR ORD 1 (QM1, ENG1, CHEM1)

In space 4 put the engine and transmission numbers since some MWO's and TB's apply only to vehicles with certain serial numbers, it'll save maintenance time identifying it.

REGISTRATION No.	COMPLETE NOMENCLATURE
1 20899253	3 TRUCK, UTILITY, ¼TON, 4x4, M38
SERIAL No. 2 31944	4 MC 82345 ENG. NO. MG 40101 — 6789 TRANS. NO. 3113

When you put in a new engine and/or a new transmission . . . make sure you cross out the old numbers and put in the new.

HERE'S HOW THE MWO'S AND MAJOR UNIT REPLACEMENTS ENTRIES ARE MADE

5 DATE:

...Means when you did the MWO or replaced the major unit

6 HOURS:

. . . . Means the number of hours or miles the equipment has been operated.

ROUNDS FIRED

. . . is for artillery and mileage is for vehicles

7 DIRECTIVES:

Here you put in the number of the MWO or T B that allowed you to do the work . . . or if you've installed a new engine, or any other MAJOR part that has a serial number, put it in here... (MAJOR PARTS ONLY).

8 HERE YOU DESCRIBE THE **UNIT** OR **MODIFICATION** AND TRY TO USE THE **NOMENCLATURE** AS IT **APPEARS** IN YOUR TM, MWO, OR TB.

9 AND HERE PUT YOUR **INITIALS** AFTER YOU'VE FINISHED!

MWO AND MAJOR UNIT ASSEMBLY REPLACEMENT RE

5 DATE	6 HOURS, ROUNDS FIRED, ET	MWO	7 DIRECTIVES	8 DESCRIPTION OF MWO COMPLETED OR MAJOR UNIT ASSEMBLY REPLACED	9 INITIALS
3 AUG. 54	907	G740-W2		DEACTIVATE PRIMER	HJW
3 AUG. 54		G740-W4		MUD ENTERING ENG. BELL HOUSING (FORDING)	HJW
3 AUG. 54		G740-W5		IGNITION SWITCH	HJW
4 AUG. 54		G740-W6		REINFORCE CORNER OF BODY	HJW
4 AUG 54				BATTERY HOLDDOWN	HJW
				REAR AXLE PLUGS	HJW
12 JAN 56			SER. NO. 82345	NEW ENGINE	ZBV
11 JAN 56			SER. NO. 6789	NEW TRANSMISSION	ZBV
10 AUG. 56			TBT-8012-1	FRONT SPRING REBOUND CLIP	HJB

ALSO **INCLUDE** THE TB'S NUMBER IF IT TELLS YOU TO **CHANGE** A PART!

Personnel t... modification or major unit assembly replacement will record clearly description of wor... completed, re... hours, mileage, equivalent rounds fired, etc., and MWO number. When major unit a... record date, ho... age, equivalent rounds fired, etc., and nomenclature of unit assembly. Minor repairs, pa...

ORGANIZATIONAL EQUIPMENT FI...
WILL BE KEPT IN POSSESSION OF 2d ECHELON MAINTENANCE
WILL ACCOMPANY EQUIPMENT UPON TRANSFER OR WHEN EVACUATI...

DA, FORM 47, MAY 52 EDITION OF 1 JUL 48 MAY BE USED.

NOW LET'S TAKE THE **REAR** — HERE YOU KEEP A RECORD OF **REPAIR** COSTS ON **TRANSPORT** TYPES OF VEHICLES WHEN THEY'RE **REPAIRED** IN FIELD MAINTENANCE OR DEPOT SHOPS... NATURALLY THIS MEANS THAT THESE ENTRIES ARE MADE BY **HIGHER ECHELONS** ONLY!

RECORD OF TOTAL REPAIR COSTS FOR TRANSPORT VEHICLES AT FIELD MAINTENANCE AND DEPOT SHOPS

DATE	INSTALLATION	JOB ORDER	COST	
			35.00	LABOR
AUG. 54	LKY		7.00	PARTS
3 AUG. 54	LKY			

NOW, LET'S TAKE A LOOK AT WHAT GOES **INSIDE**.... TECHNICAL INSPECTION WORK SHEETS, 6000 MILE (OR SEMI ANNUAL 'D') SERVICE WORK SHEETS.

...1000 MILE ('C' SERVICE) AND 'B' SERVICE AS WELL AS DAILY 'A' PREVENTIVE MAINTENANCE SERVICE WORK SHEETS. (THE 'A'S THAT SHOW DEFICIENCIES ARE KEPT HERE UNTIL THE NEXT 'C' SERIES).

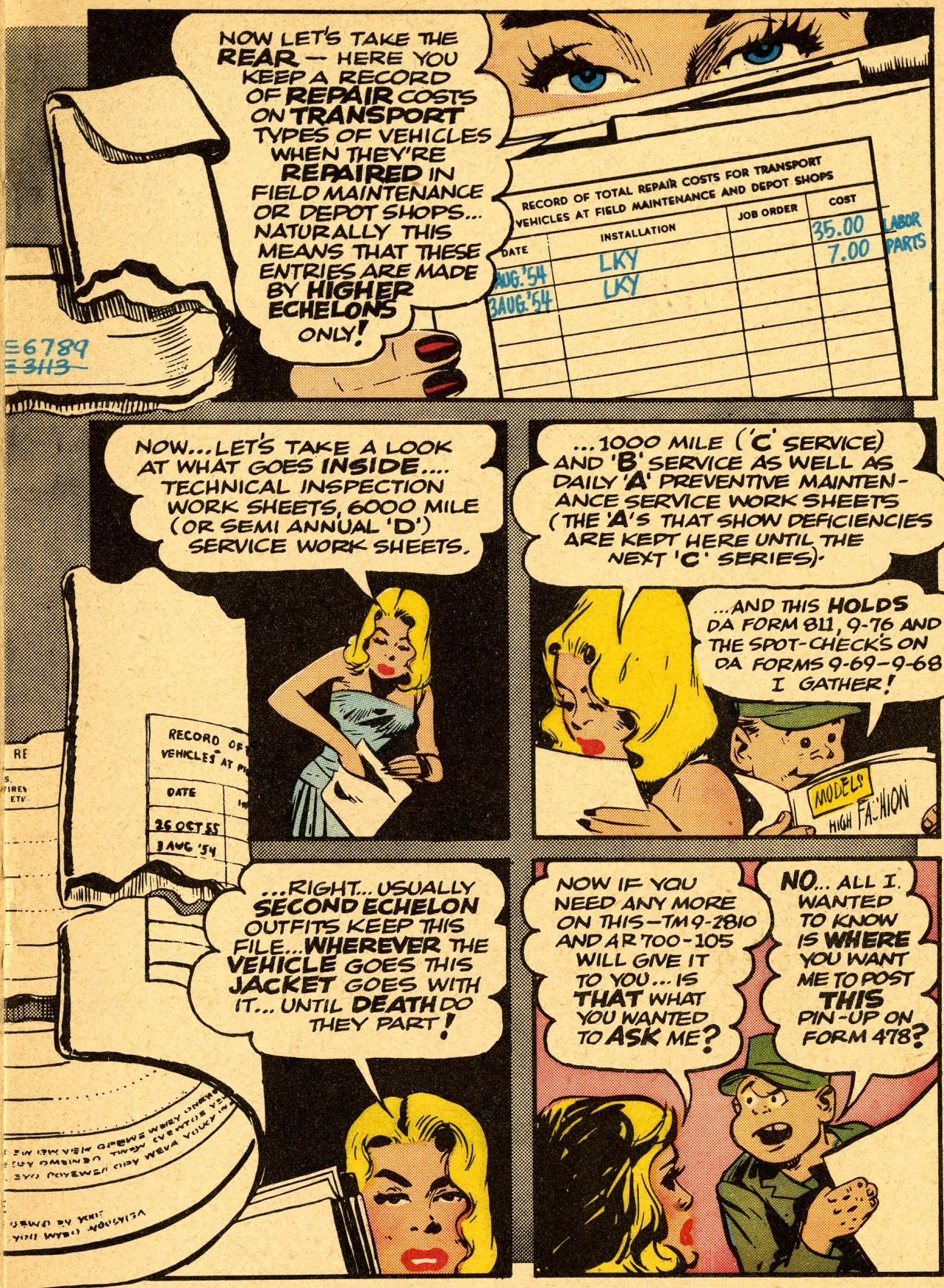
...AND THIS **HOLDS** DA FORM 811, 9-76 AND THE SPOT-CHECKS ON DA FORMS 9-69-9-68 I GATHER!

MODELS! HAH HA-HAH

...RIGHT... USUALLY **SECOND ECHELON** OUTFITS KEEP THIS FILE... **WHEREVER** THE **VEHICLE** GOES THIS **JACKET** GOES WITH IT... UNTIL **DEATH** DO THEY PART!

NOW IF YOU NEED ANY MORE ON THIS — TM 9-2810 AND AR 700-105 WILL GIVE IT TO YOU... IS **THAT** WHAT YOU WANTED TO **ASK** ME?

NO... ALL I WANTED TO KNOW IS **WHERE** YOU WANT ME TO POST **THIS** PIN-UP ON FORM 478?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...AND THIS HOLDS DA FORM 811, 9-76 AND THE SPOT-CHECK'S ON DA FORMS 9-69-9-68 I GATHER!
MODELS
HIGH FA-HION
RECORD OF
VEHICLES AT
DATE
26 OCT 55
3 AUG '54
...RIGHT... USUALLY SECOND ECHELON OUTFITS KEEP THIS FILE... WHEREVER THE VEHICLE GOES THIS JACKET GOES WITH IT... UNTIL DEATH DO THEY PART!
NOW IF YOU NEED ANY MORE ON THIS — TM 9-2810 AND AR 700-105 WILL GIVE IT TO YOU... IS THAT WHAT YOU WANTED TO ASK ME?
NO... ALL I WANTED TO KNOW IS WHERE YOU WANT ME TO POST THIS PIN-UP ON FORM 478?

JOE'S Dope Sheet

REGISTRATION No. 20899253

SERIAL No. 31944

COMPLETE NOMENCLATURE: TRUCK, UTILITY, 1/4 TON, 4X4, M38

ENG. NO. ~~MC 40101~~ MC 82345. TRANS. NO. ~~E 3113~~ E 6789

MWO AND MAJOR UNIT ASSEMBLY REPLACEMENT RECORD

DATE	HOURS, ROUNDS FIRED, MILEAGE, ETC.	MWO No.	DESCRIPTION OF MWO COMPLETED OR MAJOR UNIT ASSEMBLY REPLACED	INITIALS
3 AUG '54	907	G740-W2	DEACTIVATE PRIMER	HWB
3 AUG '54	907	G740-W4	MUD ENTERING ENG. BELL HOUSING (FORDING)	HWB
4 AUG '54	908	G740-W5	IGNITION SWITCH	HWB
4 AUG '54	908	G740-W6	REINFORCE CORNER OF BODY	HWB
4 AUG '54	908	G740-W8	BATTERY HOLDDOWN	HWB
26 OCT '55	4290	G1-W-44	WELD SHOCK BRACKETS	HB
26 OCT '55	4290	G1 W-50	ANCHOR FRONT SEAT	HB
26 OCT '55	4290	G1 W-54	TIMING INDICATOR	HB
27 OCT '55	4290	G740-W3	BAFFLE REAR AXLE	HB
27 OCT '55	4290	G740-W7	FRONT HUB SEAL	HB
27 OCT '55	4290	G1-W35	TRAILER RECEPTACLE	HB
27 OCT '55	4290	G1-W43	REAR AXLE PLUGS	HB
12 JAN '56	5010	SER. NO. 82345	NEW ENGINE	RP
12 JAN '56	5010	SER. NO. E 6789	NEW TRANSMISSION	BMV
10 AUG '56	5802	189-8012-1	FRONT SPRING REBOUND CLIP	LB

DATE	HOURS, ROUNDS FIRED, MILEAGE, ETC.	MWO No.	DESCRIPTION OF MWO COMPLETED OR MAJOR UNIT ASSEMBLY REPLACED	INITIALS

Personnel completing modification or major unit assembly replacement will record clearly description of work completed, and will initial in column provided. When modification is completed, record date, hours, mileage, equivalent rounds fired, etc., and MWO number. When major unit assemblies (*engine, transmission, transfer case, and tracks*) are replaced, record date, hours, mileage, equivalent rounds fired, etc., and nomenclature of unit assembly. Minor repairs, parts, and accessory replacements will not be recorded.

ORGANIZATIONAL EQUIPMENT FILE

WILL BE KEPT IN POSSESSION OF 2d ECHELON MAINTENANCE PERSONNEL AND WILL ACCOMPANY EQUIPMENT UPON TRANSFER OR WHEN EVACUATED TO HIGHER ECHELON

DA FORM 1 MAY 53 478

Like all jackets, Form 478
Should be filled out and kept up-to-date.
And those fine forms inside
Can be your source of pride---
Then, on any inspection, you'll **rate**!

WE HAVE THE WORLD'S BEST EQU

JOE'S Dope Sheet.

REGISTRATION No. 20899253

SERIAL No. 31944

COMPLETE NOMENCLATURE: TRUCK, UTILITY, 1/4 TON, 4X4, M38

ENG. NO. ~~MC 40101~~ MC 82345. TRANS. NO. ~~E 3113~~ E 6789

MWO AND MAJOR UNIT ASSEMBLY REPLACEMENT RECORD

DATE	HOURS, MOUNDS FIRED, MILEAGE, ETC.	MWO No.	DESCRIPTION OF MWO COMPLETED OR MAJOR UNIT ASSEMBLY REPLACED	INITIALS	DATE	HOURS, MOUNDS FIRED, MILEAGE, ETC.	MWO No.	DESCRIPTION OF MWO COMPLETED OR MAJOR UNIT ASSEMBLY REPLACED	INITIALS
3 AUG '54	907	G740-W2	DEACTIVATE PRIMER	GWB					
3 AUG '54	907	G740-W4	MUD ENTERING ENG. BELL HOUSING (FORDING)	GWB					
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4 AUG '54	908	G740-W6	REINFORCE CORNER OF BODY	GWB					
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27 OCT '55	4290	G740-W3	BAFFLE REAR AXLE	HB					
27 OCT '55	4290	G740-W7	FRONT HUB SEAL	HB					
27 OCT '55	4290	G1-W35	TRAILER RECEPTACLE	HB					
27 OCT '55	4290	G1-W43	REAR AXLE PLUGS	HB					
12 JAN '56	5010	SER. NO. 82345	NEW ENGINE	RB					
12 JAN '56	5010	SER. NO. E 6789	NEW TRANSMISSION	EMK					
10 AUG '56	5802	1189-8012-1	FRONT SPRING REBOUND CLIP	HB					

Personnel completing modification or major unit assembly replacement will record clearly description of work completed, and will initial in column provided. When modification is completed, record date, hours, mileage, equivalent rounds fired, etc., and MWO number. When major unit assemblies (engine, transmission, transfer case, and brakes) are replaced, record date, hours, mileage, equivalent rounds fired, etc., and nomenclature of unit assembly. Minor repairs, parts, and accessory replacements will not be recorded.

ORGANIZATIONAL EQUIPMENT FILE

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DA FORM 1 MAY 56 478

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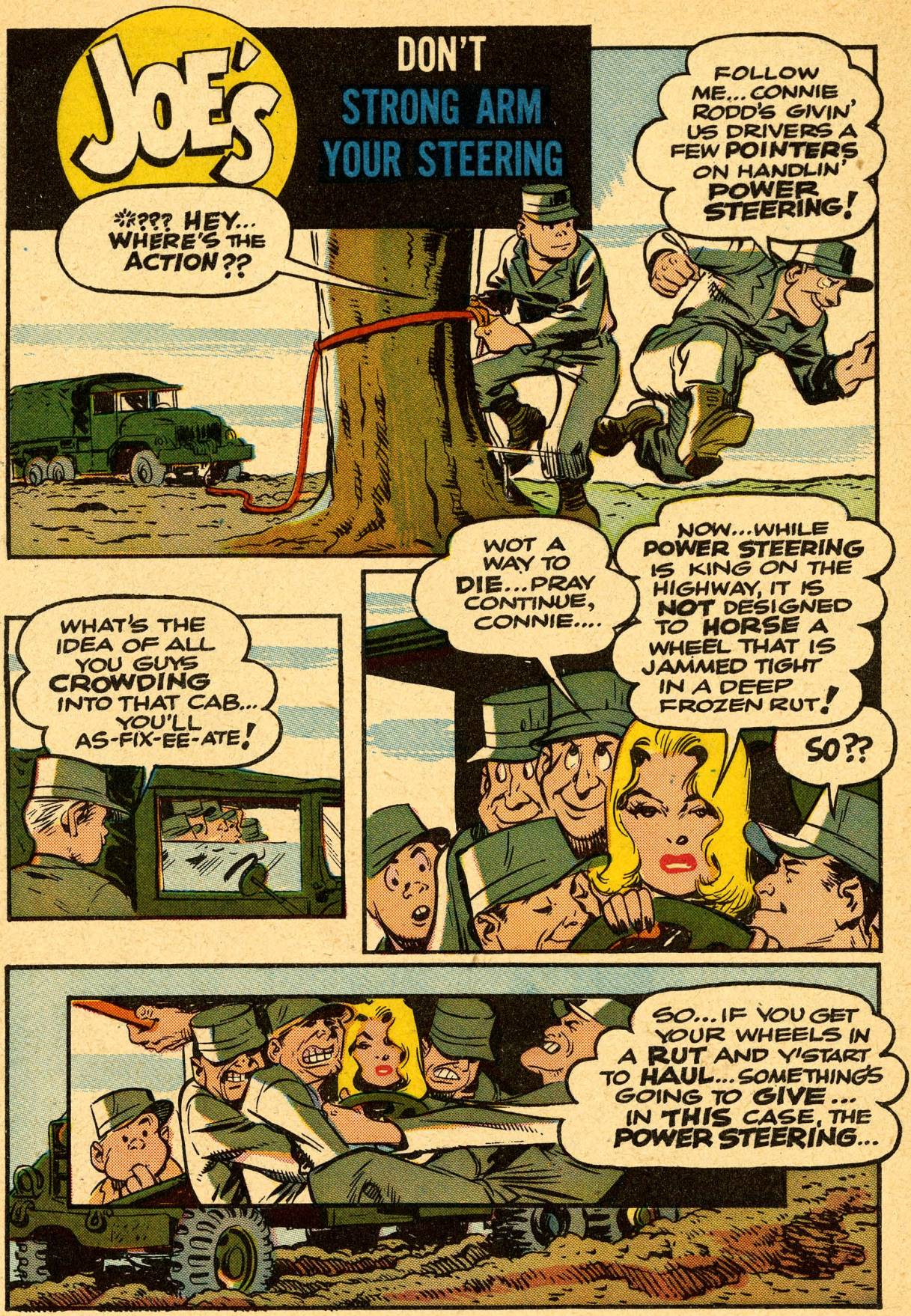
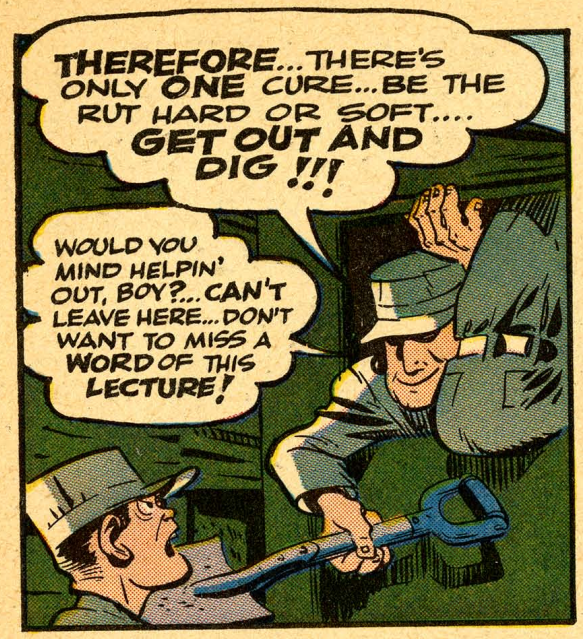
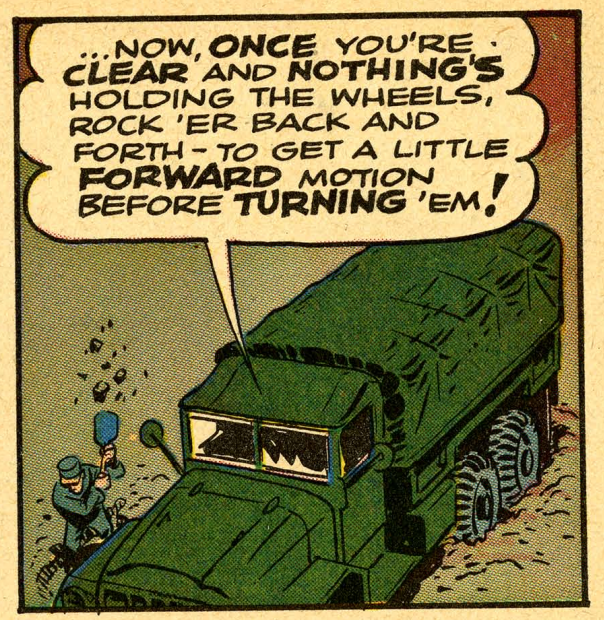
WE HAVE THE WORLD'S BEST EQUIPMENT... *Take care of it*

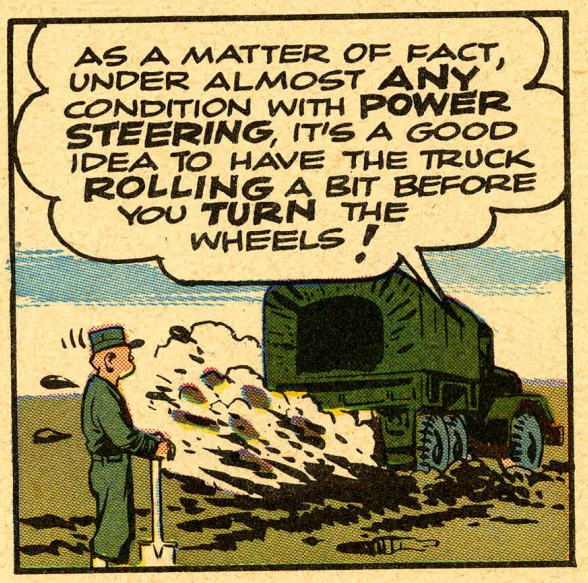
UIPMENT... Take care of it

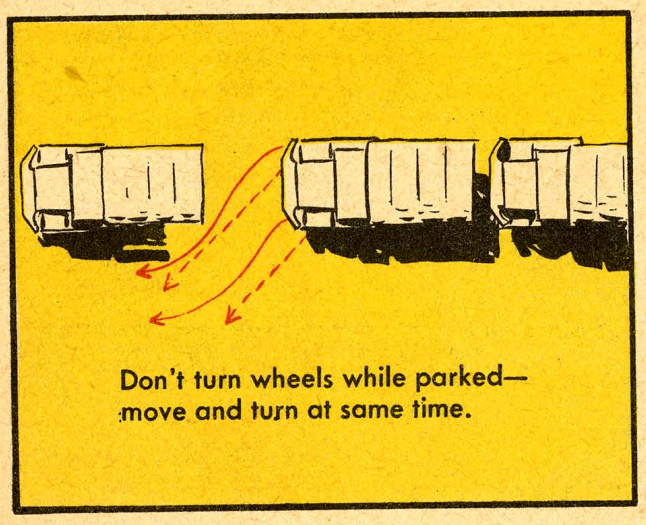

JOE'S
DON'T
STRONG ARM
YOUR STEERING
*??? HEY... WHERE'S THE ACTION??
FOLLOW ME... CONNIE RODD'S GIVIN' US DRIVERS A FEW POINTERS ON HANDLIN' POWER STEERING!
WOT A WAY TO DIE... PRAY CONTINUE, CONNIE....
NOW... WHILE POWER STEERING IS KING ON THE HIGHWAY, IT IS NOT DESIGNED TO HORSE A WHEEL THAT IS JAMMED TIGHT IN A DEEP FROZEN RUT!
SO??
WHAT'S THE IDEA OF ALL YOU GUYS CROWDING INTO THAT CAB... YOU'LL AS-FIX-EE-ATE!
SO... IF YOU GET YOUR WHEELS IN A RUT AND Y'START TO HAUL... SOMETHING'S GOING TO GIVE... IN THIS CASE, THE POWER STEERING...

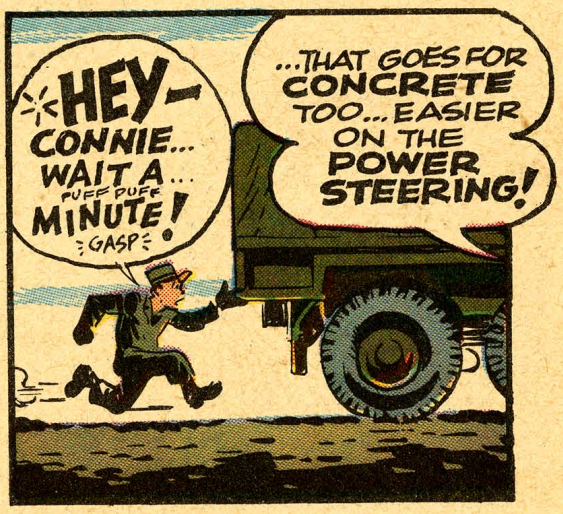

THEREFORE... THERE'S ONLY ONE CURE... BE THE RUT HARD OR SOFT.... GET OUT AND DIG !!!
WOULD YOU MIND HELPIN' OUT, BOY?... CAN'T LEAVE HERE... DON'T WANT TO MISS A WORD OF THIS LECTURE!

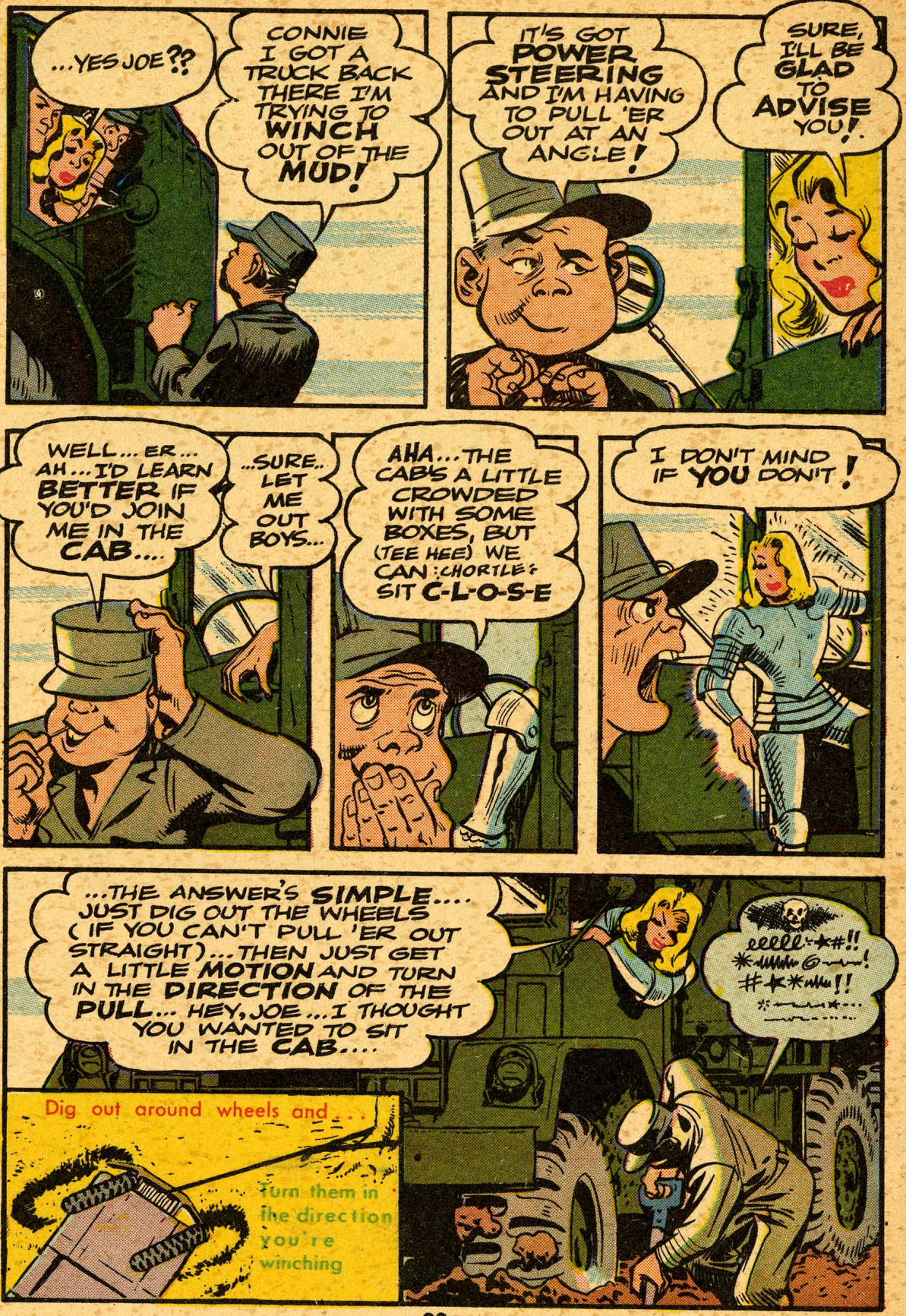

...NOW, ONCE YOU'RE CLEAR AND NOTHING'S HOLDING THE WHEELS, ROCK 'ER BACK AND FORTH - TO GET A LITTLE FORWARD MOTION BEFORE TURNING 'EM!

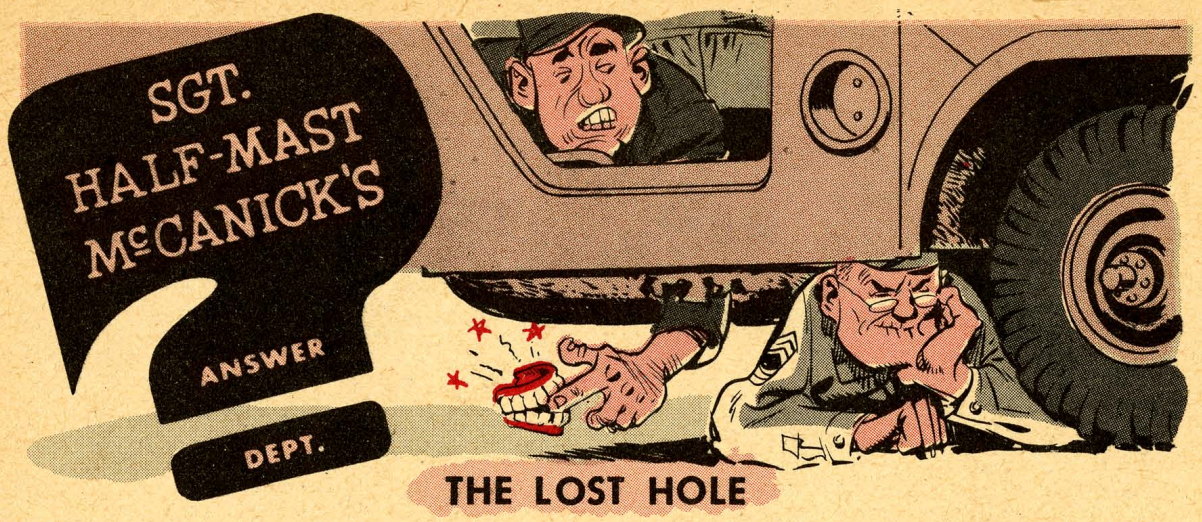
Dig out and around wheels and . . .
. . . rock truck as you turn them.


AS A MATTER OF FACT, UNDER ALMOST ANY CONDITION WITH POWER STEERING, IT'S A GOOD IDEA TO HAVE THE TRUCK ROLLING A BIT BEFORE YOU TURN THE WHEELS!


Don't turn wheels while parked— move and turn at same time.


HEY- CONNIE... WAIT A... PUFF PUFF MINUTE! GASP
...THAT GOES FOR CONCRETE TOO... EASIER ON THE POWER STEERING!


...YES JOE??
CONNIE I GOT A TRUCK BACK THERE I'M TRYING TO WINCH OUT OF THE MUD!
IT'S GOT POWER STEERING AND I'M HAVING TO PULL 'ER OUT AT AN ANGLE!
SURE, I'LL BE GLAD TO ADVISE YOU!
WELL... ER... AH... I'D LEARN BETTER IF YOU'D JOIN ME IN THE CAB....
...SURE.. LET ME OUT BOYS...
AHA... THE CAB'S A LITTLE CROWDED WITH SOME BOXES, BUT (TEE HEE) WE CAN CHORTLE SIT C-L-O-S-E
I DON'T MIND IF YOU DON'T!
...THE ANSWER'S SIMPLE.... JUST DIG OUT THE WHEELS (IF YOU CAN'T PULL 'ER OUT STRAIGHT)... THEN JUST GET A LITTLE MOTION AND TURN IN THE DIRECTION OF THE PULL... HEY, JOE... I THOUGHT YOU WANTED TO SIT IN THE CAB....
eeeee-*#!!
Dig out around wheels and...
turn them in the direction you're winching



THE LOST HOLE

Dear Half-Mast,

Maybe we're a bit behind the times, but we've just received a few of those "new" M38A1 Jeeps. We found that they don't have 24-volt receptacles for powering our Jeep-mounted radios like the older M38's.

What happened to the hole?

CWO L. K. L.

Dear CWO L. K. L.,

The M38's under serial number 47772 had the radio power cable and receptacle built right in. But the M38's after serial number 47772 and the M38A1's didn't have them installed.

Now, if your Jeeps are assigned to carry radios, but they don't have the built-in cables and receptacles, you can get them in the form of a kit and install them yourself. You get these kits by ordering Kit, installation radio power feed, Ord Stock No. G758-5701808.

Half-Mast

WHUFFOR RECKTEEFIER?

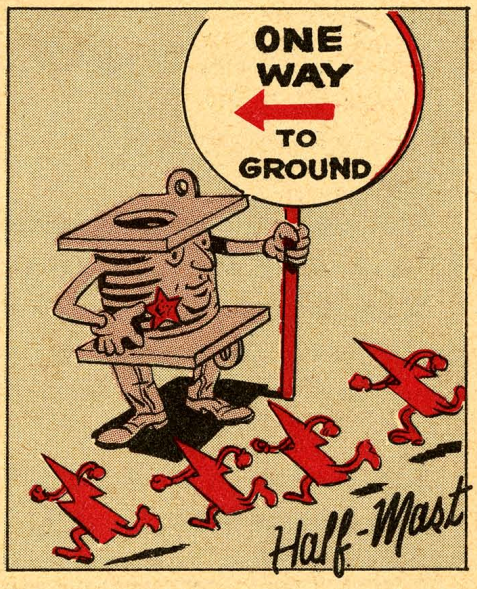
Dear Half-Mast

What's the rectifier in the Auto-Lite VBC-4002 UT generator regulator for? It's got our electrical classes all confused.

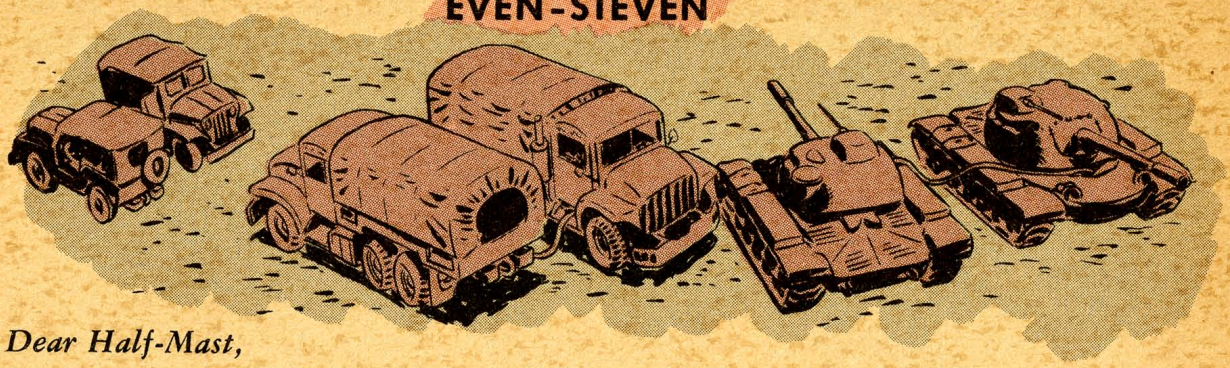
SP2 W. C. T.

Dear Specialist W. C. T.,

It is confusing, isn't it? What that rectifier does is provide a one-way path to ground for the induced voltage that occurs when you reduce the generator field current. Without the rectifier this voltage would tend to push across the regulator contact points and burn them. As it is, it can pass off harmlessly to ground and prolong life of points.



EVEN-STEVEN



Dear Half-Mast,

What's the word on using a Jeep to slave start a tank? I'm sure it shouldn't be done, but can't find anything in the manuals about it.

OCMT J. W. M.

Dear Mr. J. W. M.,

There's a TB in the mill right now that'll require the use of a vehicle with like battery capacity for slave starting.

It's a darn shame that you have any trouble selling this deal anyhow. Anybody can see that if the little 45 ampere-hour batteries in the Jeep were enough to crank a cold tank engine, they wouldn't have put **four** 100 ampere-hour batteries in the tanks. The trouble is, you can generally get away with using the Jeep. The overloading of your batteries doesn't show up right away—it may be a month or more later before you find yourself afoot.

Half-Mast

TUBELESS FACTS

Dear Half-Mast,

In this outfit, we've been getting some commercial cars and trucks that have tubeless tires.

Can you give us the right tire inflation pressures for these tires?

Sgt F. H.

Dear Sgt F. H.,

Sure can.

First, the recommended inflation for passenger car tires, sizes 5.90x15 through 8.90x15, is 24 PSI for 4-ply tires and 30 PSI for six plies.

When it comes to tubeless truck or bus tires, the inflation pressure depends on the tire load. The table on the next page gives you these recommended pressures, taking into consideration tire size, ply rating and tire load. Let's see how this table works.

Say you have a truck with 10-ply 9.00x22.5 tires on it. Your vehicle's gross weight is about 3000 pounds per tire. What you do is go down the column marked tire size until you come to your tire. Then you go across until you find the gross

weight figure nearest to the one of your vehicle. In this case, the figure closest to the one is 3040 pounds. Look up the column till you come to the recommended inflation pressure for your tires—in this case, it would be 60 PSI. So, you'd inflate to about 60 PSI.

The last figure in any one of the columns going across—the figure that is shown in red—is the maximum gross load that's recommended for that particular tire.

Happy floating Half-Mast

TUBELESS TIRES FOR COMMERCIAL TRUCKS, BUSSES AND LIGHT TRUCKS IN HIGHWAY SERVICE

TIRE SIZE	PLY RATING	TIRE LOADS AT VARIOUS INFLATION PRESSURES								
		40	45	50	55	60	65	70	75	80
TUBELESS TRUCK-BUS TIRES USING DROP CENTER RIMS										
7x22.5	6	1640	1760	1870						
7x22.5	8	1640	1760	1870	1980	2080	2180			
8x19.5	6	1830	1960	2090						
8x19.5	8	1830	1960	2090	2220	2330	2440			
8x22.5	8	2060	2210	2350	2490	2620	2740			
8x22.5	10	2060	2210	2350	2490	2620	2740	2860	2980	
9x22.5	10	2400	2570	2730	2890	3040	3180	3330		
9x22.5	12	2400	2570	2730	2890	3040	3180	3330	3460	3600
10x22.5	10		3040	3240	3440	3620	3790	3960		
10x22.5	12			3240	3440	3620	3790	3960	4120	4280
11x22.5	12			3600	3820	4020	4220	4410	4580	
11x24.5	12			3860	4080	4290	4500	4700	4880	
12x22.5	12			4060	4300	4520	4740	4950	5150	
12x24.5	12			4320	4580	4810	5050	5270	5480	
TUBELESS TRUCK-BUS TIRES USING FULL TAPERED BEAD SEAT RIMS										
12.00x21	14					5090	5330	5580	5800	6020
12.00x23	14					5410	5670	5930	6150	6400
12.00x25	14					5730	6000	6280	6550	6780
TUBELESS LIGHT TRUCK TIRES USING DROP CENTER RIMS										
7x17.5	6	1420	1520							
8x17.5	6	1620	1735							
8x17.5	8	1620	1735	1850	1965	2060				

Red numbers denote maximum recommended loads.

BOTTOMS UP

Dear Half-Mast,

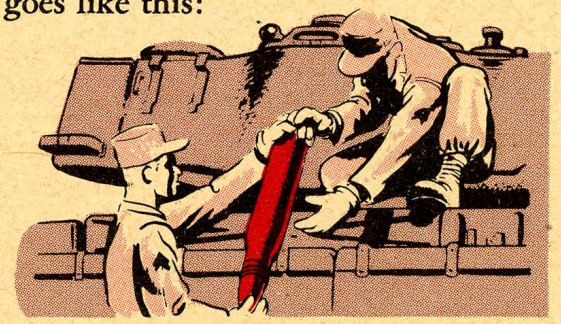
How do you load ammo from the ground thru the tank turret and into the ready racks? Does the base or the nose of the shell go into the turret first? Which way is easier and safer?

CWO H. G.

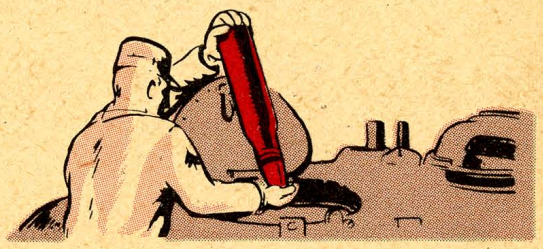
Dear Mr. H. G.,

There's one thing you've got to remember—the primer end of your round is easier to set off accidentally than the nose end. The primer end should always be kept covered and in the UP position. And you should take care that neither end is dropped or punched against other objects. The easiest way is not always the safest way to handle ammo.

The correct ammo loading routine goes like this:

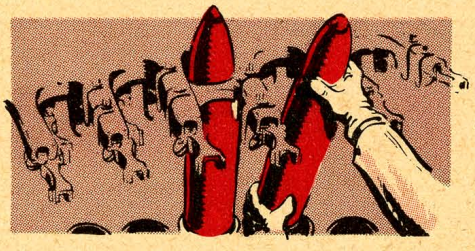


If you're the **Ground Man** place the cover end of the fiber container on the ground between your feet. After you've lifted off the larger part of the container, inspect the round to make sure it's clean, no dents in the cartridge case, and closing cup or plug is not loose or broken. When you pick up the round you immediately put your hand over the primer and turn the round base up. Keeping the base up, you pass the round to the man on the deck. You slip your hand off the base when the tank man slips his over the base.



If you're the **Tank Man**—you grab the ammo with both hands as the ground man hands it to you. Slip one hand over the up-turned base. Now lower the ammo into the turret—fuze first.

If you're the **Turret Man**—take the ammo from the tank man by grabbing the fuze end with your left hand. You put your right hand over the base when the tank man slips his off. You place the round in the ready racks by keeping your right hand over the primer and turning the base of the round down so you can place the round in the rack.



The **primer must always be up** while handling the ammo until you finally place it into the racks so it'll be protected against accidental discharge.

Half-Mast

FLAPPIN' FIFTHS

Dear Half-Mast,

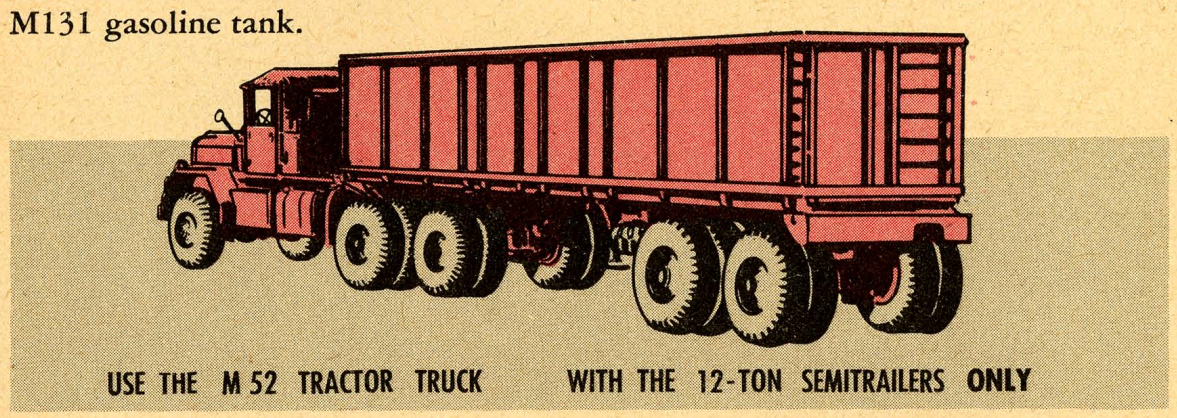
Lately we've been noticing that the fifth wheels on many of our M52 G744 5-ton truck-tractors have been breaking for some unknown reason.

We use these trucks a lot over rough terrain and are just wondering if the bobbing of the fifth wheel against the chassis is causing our trouble.

MSgt T. D. Y.

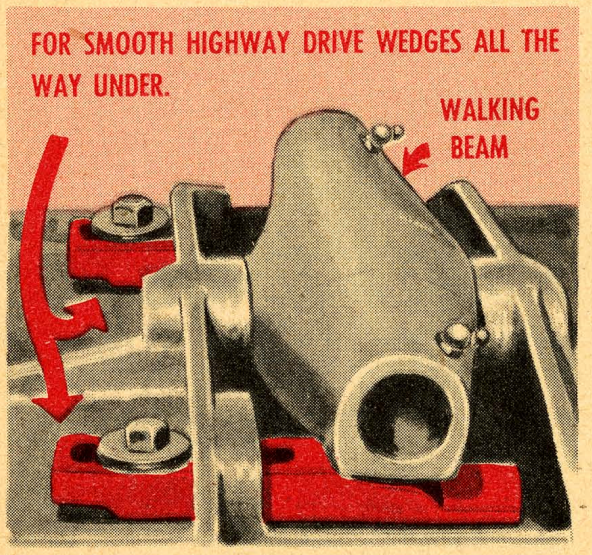
Dear MSgt T. D. Y.,

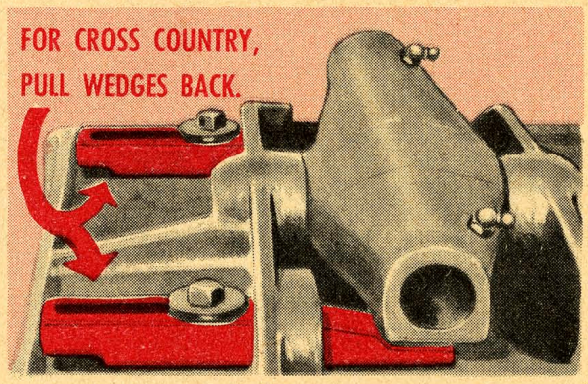
We don't think so. From the way you describe it, we'd say you're using that M52 tractor to pull all kinds of semi-trailers. That tractor is built to take only one kind of semi—the 12-ton van flat or low bed, like the M127 cargo trailer or the M131 gasoline tank.



USE THE M 52 TRACTOR TRUCK WITH THE 12-TON SEMITRAILERS **ONLY**

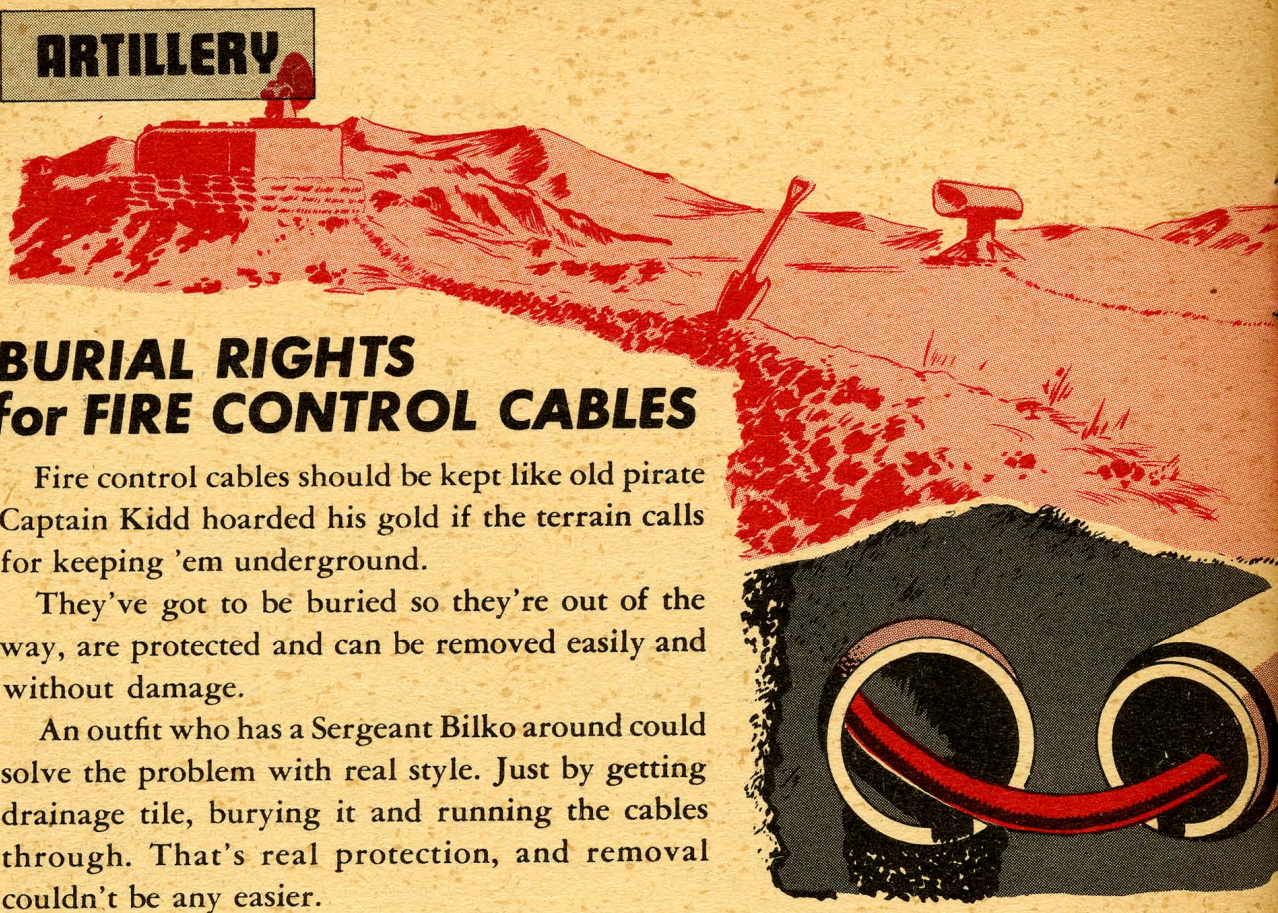
Use any other kind and the angle of the dangle will be off between the fifth wheel and the upper fifth wheel plate on your trailer. Because of the difference in angles, most of the semi's weight is put on the base of the fifth wheel of your tractor, and it could crack. Those fifth wheels are strong things, and bobtailing won't crack 'em.





The M52 fifth wheel is built for side-to-side movement when going cross-country.

Half-Mast



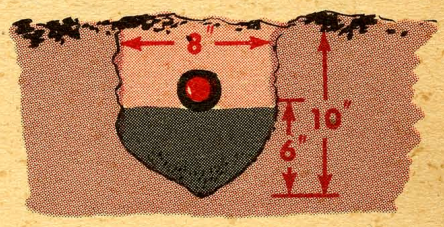
BURIAL RIGHTS for FIRE CONTROL CABLES

Fire control cables should be kept like old pirate Captain Kidd hoarded his gold if the terrain calls for keeping 'em underground.

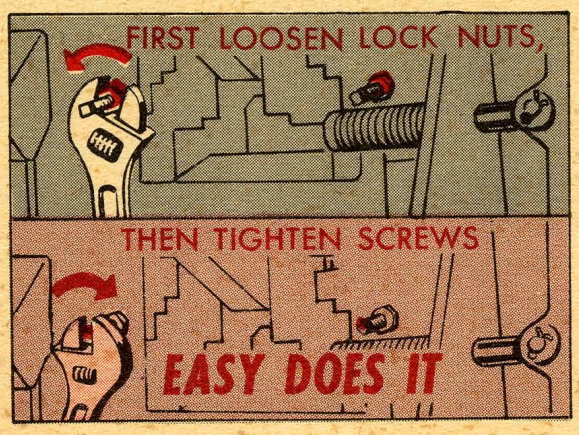
They've got to be buried so they're out of the way, are protected and can be removed easily and without damage.

An outfit who has a Sergeant Bilko around could solve the problem with real style. Just by getting drainage tile, burying it and running the cables through. That's real protection, and removal couldn't be any easier.

Course, drainage tile is hard to come by. Next best thing is to bury the cable like it says in para 11 of TM 9-649 dated May 1952. Bury 'em in a trench about 8 inches wide and at least 10 inches deep. Grade the bottom of the trench to a low point for water drainage and put in a 6-in layer of sand or cinders.

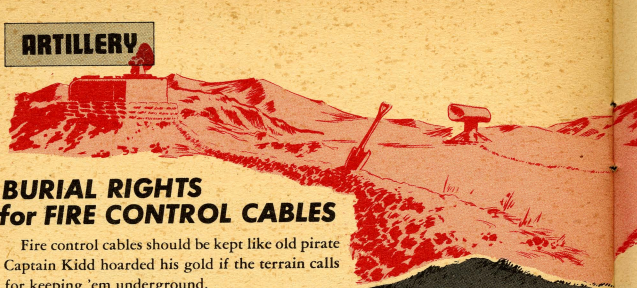


HOLD THAT MUSCLE



Forget the strong arm stuff when it comes to tightening the two extractor plunger locking screws into the breech-block on the M2 series 90-mm AA gun.

Too much muscle with the wrench causes the end of the screw to mushroom in the breech ring. Once this happens, it's darn tough to remove the screw. Could mean the Ordnance people will have to drill the thing out.



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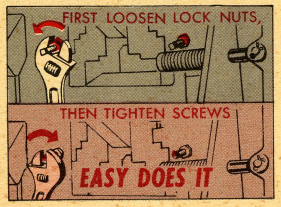

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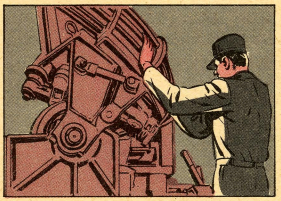
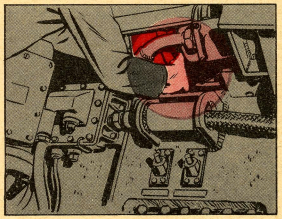


Five horses are better'n none. And if you're not kind to the five-horsepower motor on your 120-mm M1 gun, you may be out a motor.

Some guys are running the five horses into the ground because they're not handling the rammer tray the right way.

They lower the tray by hand and then try to raise it with power. That causes the motor to burn out because too heavy an initial load is put on it.

The motor already has a heavy load to start off with because of the flywheel it turns. So when you set the rammer tray in operation without letting the motor first hit top speed, you're asking too much of the five horses.

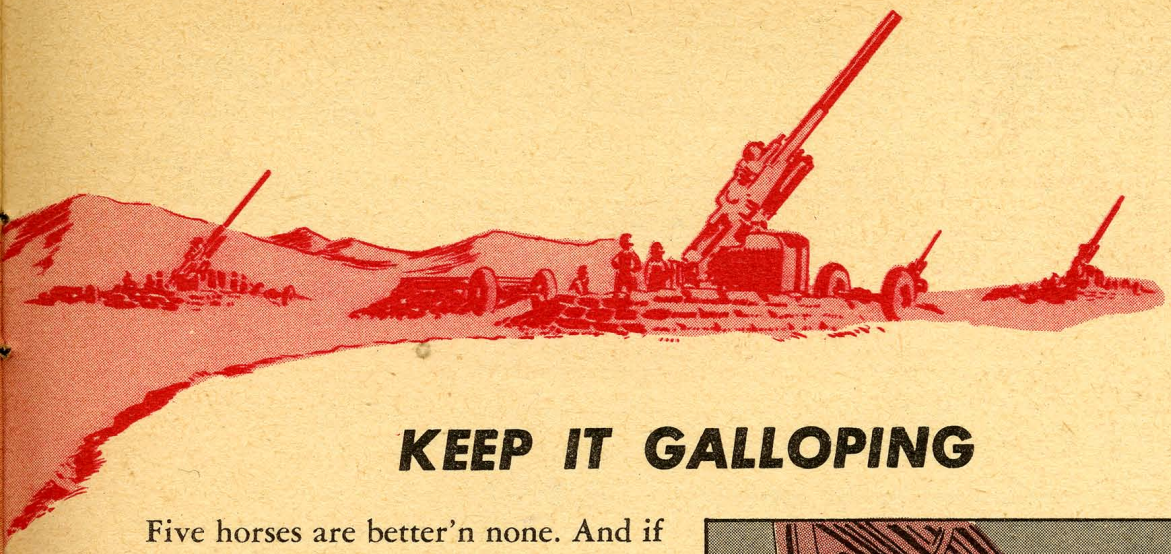


What you should do after lowering the tray by hand is to raise it the same way—by hand.

And remember: Always have the motor revving at top peak before you give it a load to carry.

FOR THE RECORD

Whenever you send your gun back to Ordnance for **anything**, make sure that gun book (Weapon Record Book) goes along. That book is the gun's record—its bible—and should go wherever that gun goes.



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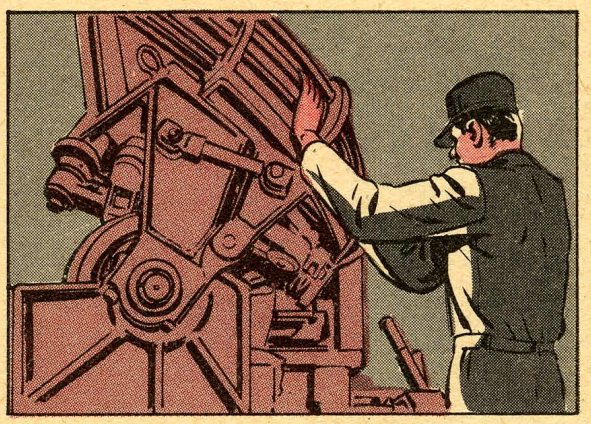

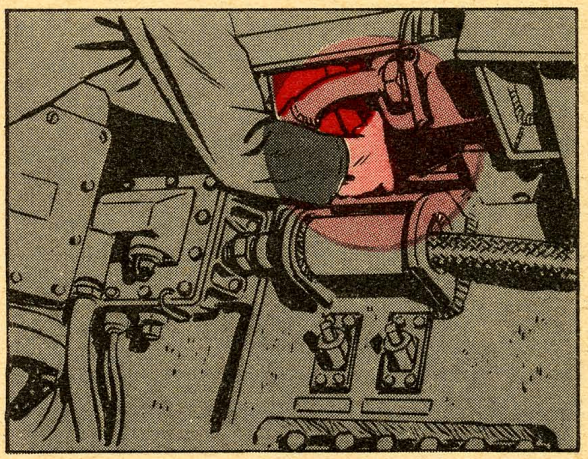

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NEVER MIX 'EM

You may be good at mixing fire, water and soda for the boys. But be careful what you do with parts of the .30-cal M37 machine gun.

Mix certain frame locks and triggers and you're liable to make somebody look like a sieve, what with the chances of a runaway weapon developing.

The machine guns which may turn your hair gray are some of those which have serial numbers below 20344.

DA MWO A89-W1 (3 Feb 56) requires that the triggers with rough undersurfaces (Fig 1) get replaced with triggers having a machined undersurface.

In case the trigger in your gun hasn't been fully machined, your best bet is to see about getting the trigger replaced by one of the triggers in MWO Ord A89-W1. You'll want to see the MWO change, too; it provides for still more improvement on that trigger.

The frame lock in the same guns has a 45-degree bevel at the spot shown in Fig 2. This bevel doesn't affect performance.

You may be in good shape even though your gun has a serial number below 20344. See that star-like mark next to the model number in Fig 3? The mark means the faulty trigger has been replaced.

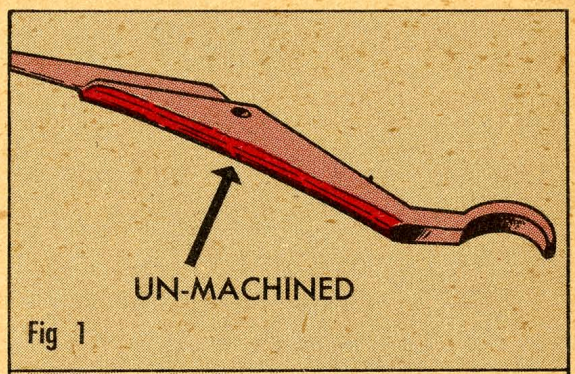


Fig 1

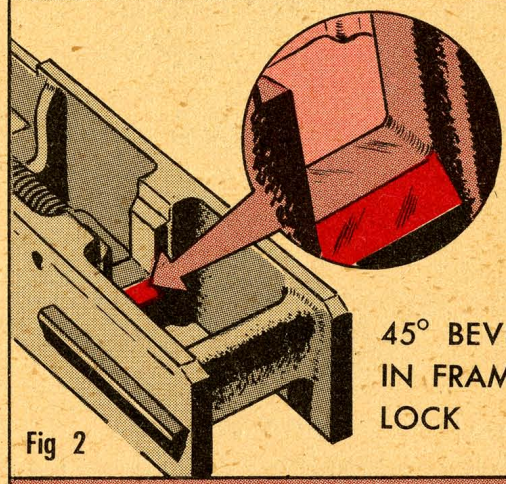
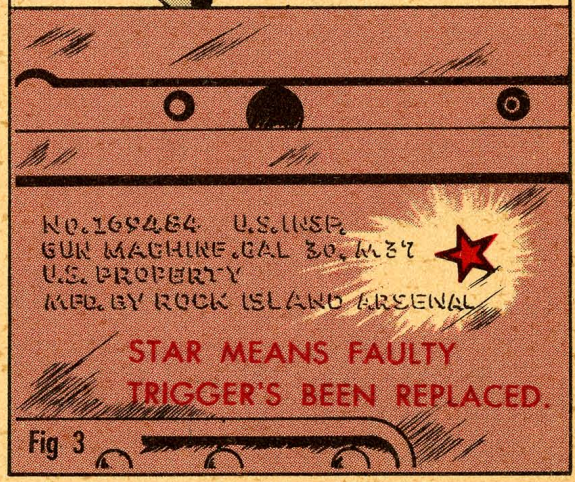


Fig 2



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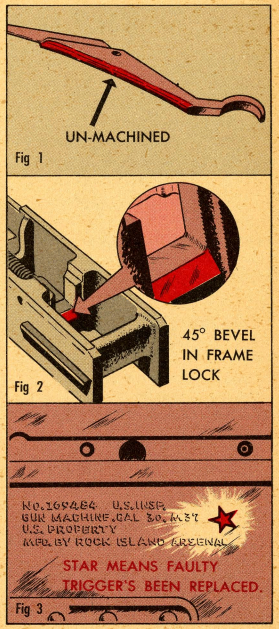


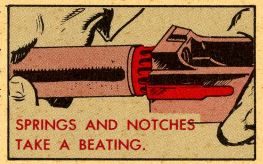
PETERED-OUT PARTS?

Been talking in your sleep 'cause you can't keep the right headspace adjustment when you fire your .30-cal M1919A6 machine gun?

Chances are a new barrel or barrel locking spring may mean getting back some of that lost sleep.

When you fire the gun long and often, and take it apart and reassemble it a lot, the spring and barrel locking notches take a beating. The spring loses its oomph and the notches wear down. Either trouble, or both together, will cause the headspace to go out of whack during firing because there's no tension on the barrel.

You can get a new barrel by asking for Ord Stock No. A006-7148400 (FSN 1005-714-8400). Getting a new barrel locking spring is a job for your armorer-artificer. He gets it by requisitioning (FSN 5340-614-7230).



USELESS TWIST

No sense in your always tightening the screws on the solenoid support used with the .30-cal machine guns on tanks. Not when your trouble is a missing or worn out lock washer.

Your fix is to requisition Screw, assembled washer (Ord Stock No H101-0420454). Take a gander to the right—in case you've lost both screws and don't know what you're looking for. As you can see, the screw comes "equipped" with the lock washer.

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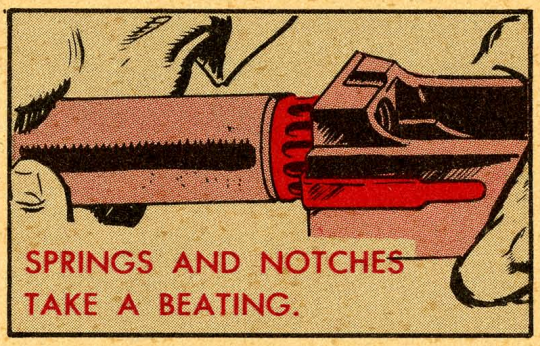

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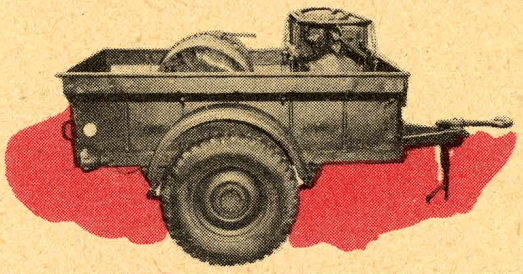
You Can Saddle Up And Hit the Road With...

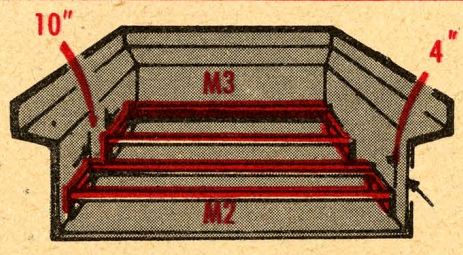
CHEMICAL YOUR FOGGING

Mounting your smoke generator (M3-series) and fog oil drum to a Jeep or ¼-ton trailer is a lead-pipe cinch with these two new saddles that're waiting for you.

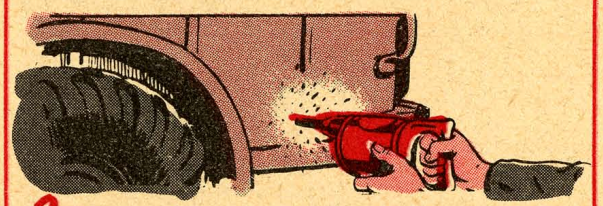
One of the mounts, the M2 (FSN 1040-347-2434) is for holding your generator in a Jeep or trailer. And the other, the M3 (FSN 1040-049-5462) is for cradling a 55-gal fog oil drum in a trailer. They'll come to you knocked down, but they're easy to put together and all the hardware's provided in the wooden box they come in. **Here's a run-down on attaching the mounts to your transportation:**

IF YOU'RE USING A TRAILER

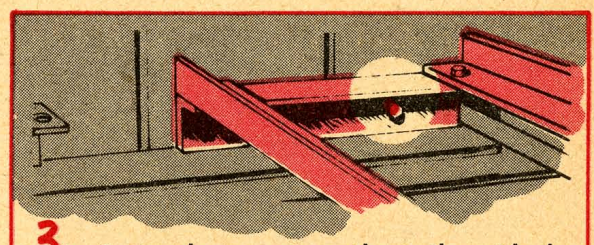




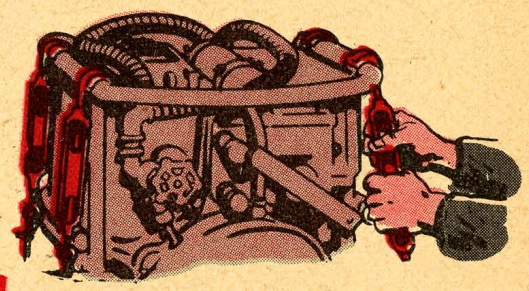
1. Place the assembled mounts in the trailer as above. The M2 is positioned 4 inches from the front end of the trailer and the M3 10 inches from the generator mount. This gives the trailer a balanced load.



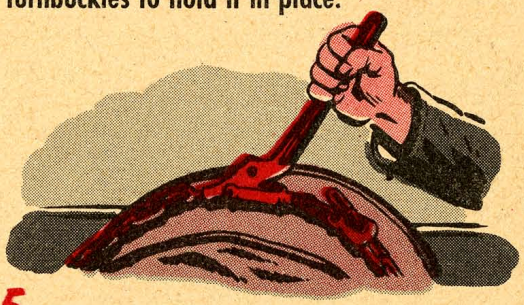
2. Drill 7/16-in holes in the sides of the trailer to match the holes in the end pieces of the mounts. **Note:** Drill only **two** holes at each end for the M2. The M3 takes four holes at each end.



3. Secure the mounts to the trailer with the capscrews.



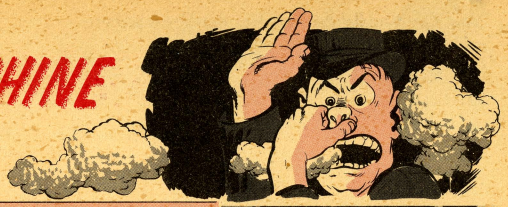
4. Load the generator so that its frame seats inside the mount's spacers. Hook the wire ropes to the top frame of the generator and tighten the turnbuckles to hold it in place.



5. Anchor the fog oil drum to its mount with the chair-and-load binder attached. Just hitch up your horsepower and you're ready to roll.

You Can Saddle Up And Hit the Road With...

CHEMICAL YOUR FOGGING MACHINE



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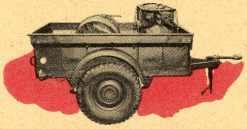

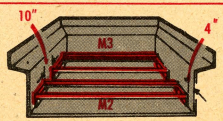

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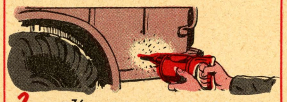
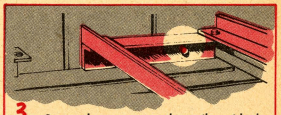
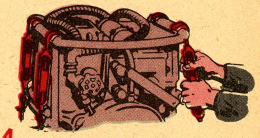


2. Drill 7/16-in holes in the sides of the trailer to match the holes in the end pieces of the mounts. **Note:** Drill only **two** holes at each end for the M2. The M3 takes four holes at each end.



3. Secure the mounts to the trailer with the capscrews.

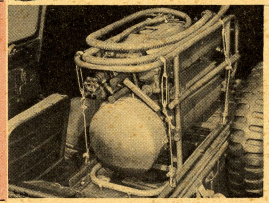


4. Load the generator so that its frame seats inside the mount's spacers. Hook the wire ropes to the top frame of the generator and tighten the turnbuckles to hold it in place.

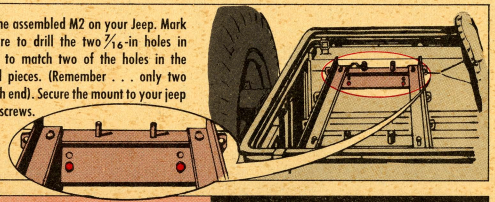
5. Anchor the fog oil drum to its mount with the chair-and-load binder attached. Just hitch up your horsepower and you're ready to roll.

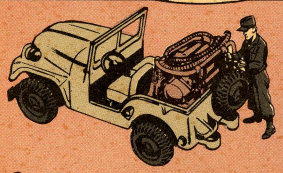
TO USE THE JEEP...

1. Take out the Jeep's back seat. Take care here . . . fold up the seat and take the retaining clip off one retaining bracket to ease out the seat. Put the retaining clip back so it won't get misplaced. Then remove the frame spring retainer from each side and attach them to the seat for safe keeping. Put a tough identification tag on the seat and turn it in to company supply for storage.

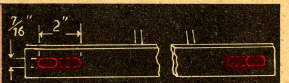


2. Place the assembled M2 on your Jeep. Mark exactly where to drill the two 7/16-in holes in each fender to match two of the holes in the mount's end pieces. (Remember . . . only two holes for each end). Secure the mount to your jeep with the capscrews.



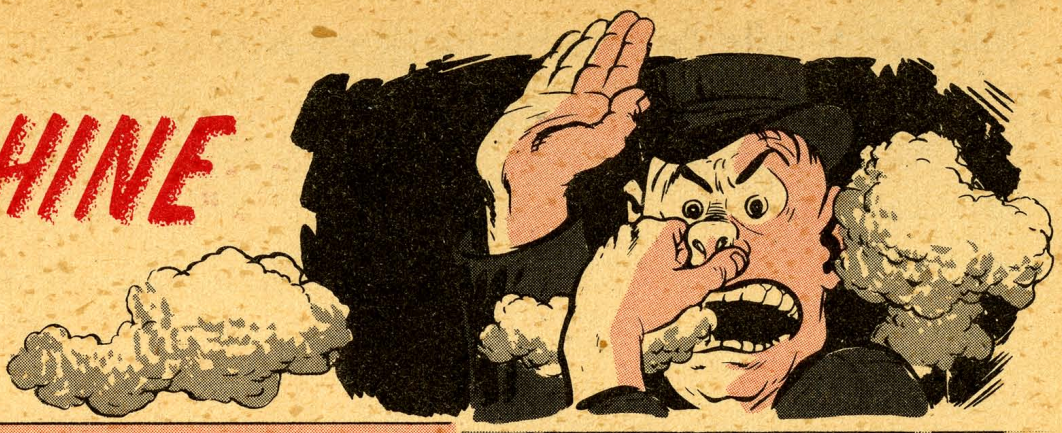


3. Mount the generator to the frame and secure it with the wire ropes. **That's all there is to it.**



NOTE: A minor cutting job's needed on the M2 mount when it's anchored on the Jeep. Here's all it is. Before assembling the mount, have the slots in the mount's side pieces lengthened one inch. This'll let you squeeze the M2's frame to fit just right between the Jeep's fenders.

MACHINE



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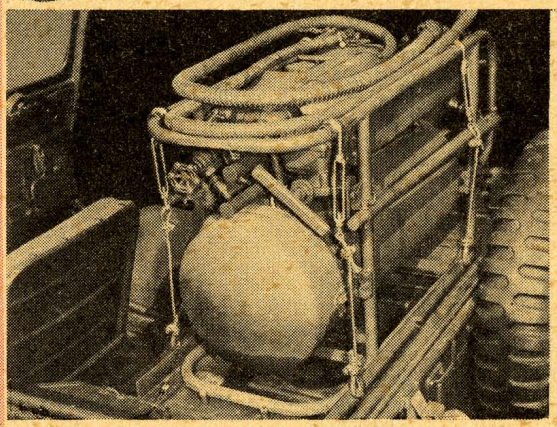

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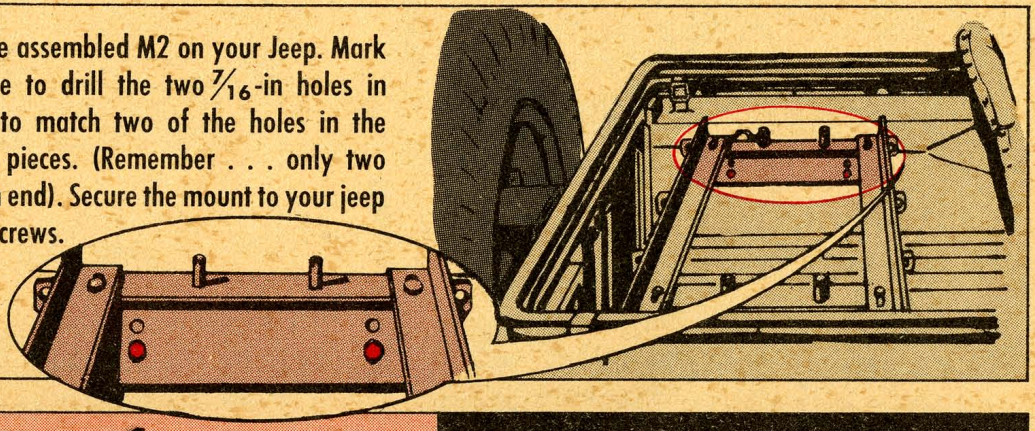

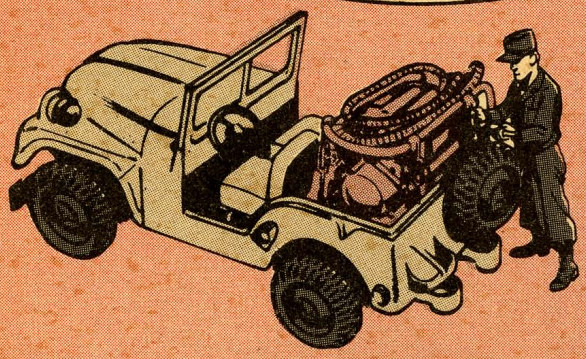

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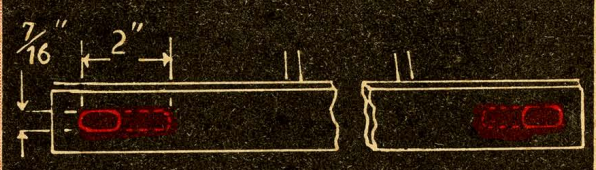

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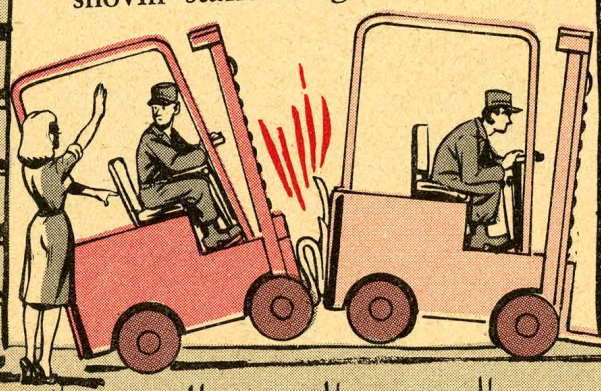
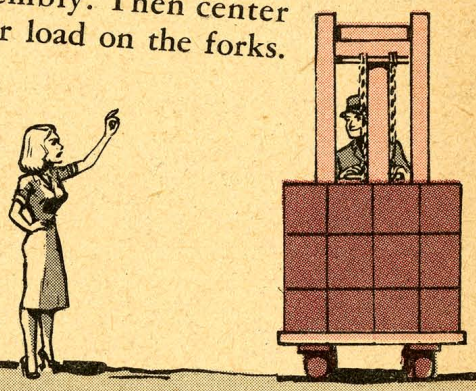
QUARTERMASTER

N-E-V-E-R...! N-I-X...!! N-E-V-E-R...!!! IN Forklift

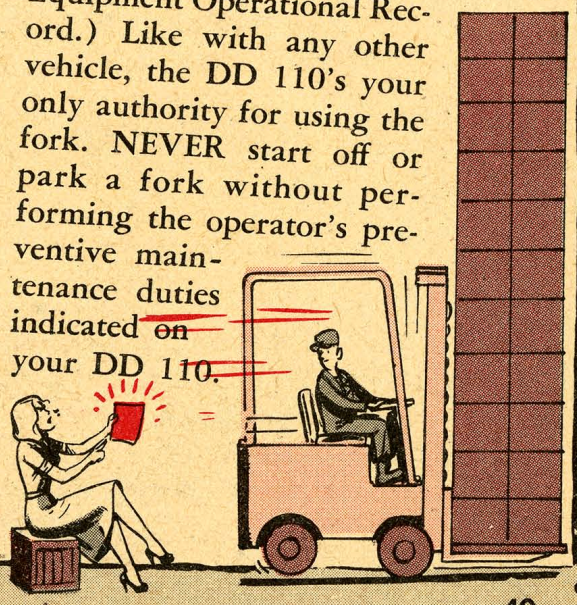
NEVER push another vehicle with a forklift truck. You'll damage the forks and possibly the mast frame, the hydraulic mechanism and maybe even the friend who asked for a shove. A fork's made to hoist, carry and stack . . . it's not for shovin' stalled neighbors.



NEVER lift a load with only one fork. Unbalanced hoisting will likely distort the fork assembly or break it. Make sure your forks are equally spaced from the center of the mast assembly. Then center your load on the forks.



NEVER operate a forklift truck without a DD 110 (Vehicle and Equipment Operational Record.) Like with any other vehicle, the DD 110's your only authority for using the fork. NEVER start off or park a fork without performing the operator's preventive maintenance duties indicated on your DD 110.



NEVER take your warehouse forklift for a spin in loose gravel or a sandy court-yard. You'll bring it back indoors with its solid tires minus big chunks of rubber. NEVER leave the forks raised when you stop or park the truck. It's just not safe.

N-E-V-E-R...! N-I-X...!! N-E-V-E-R...!!! IN

Forklift Care and Operation

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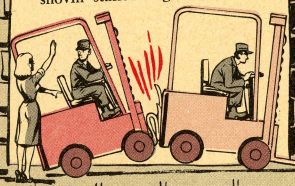

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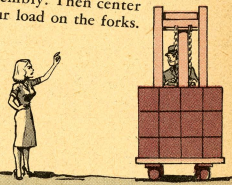

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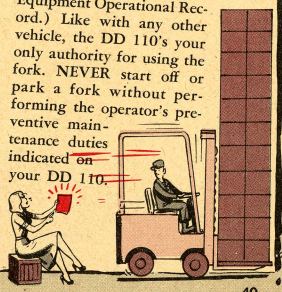

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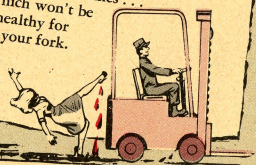
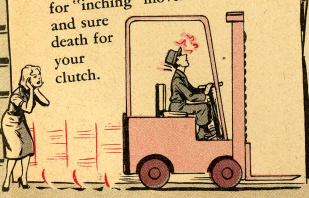
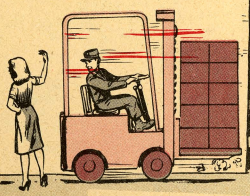
NEVER fail to check for hydraulic system leaks daily, oil level weekly. NEVER neglect to report excess leakage to the shop. You may be able to tell exactly how the oil level stands from the way the fork operates . . . but guess work isn't a substitute for dipstick checks. Without the daily and weekly checks a hydraulic system may turn up near dry sometimes . . . which won't be healthy for your fork.



NEVER keep your foot on the clutch pedal while operating your forklift. It may rest your foot but it's **murder** for your clutch. NEVER use the high range gear for "inching" your forklift. That's what you have a low range gear for. Slipping the clutch in high gear for "inching" movements is sudden and sure death for your clutch.



NEVER travel with the forks raised more than a few inches. Keep them low enough that if you happen to bump a stack, you'll hit the pallet and not the material on it. When your load is too high to see over it, drive backwards.



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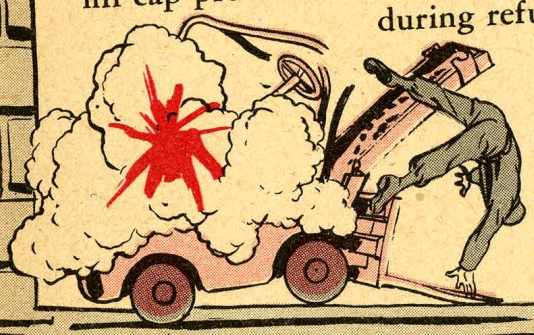

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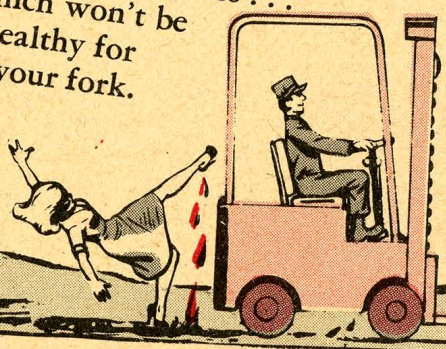

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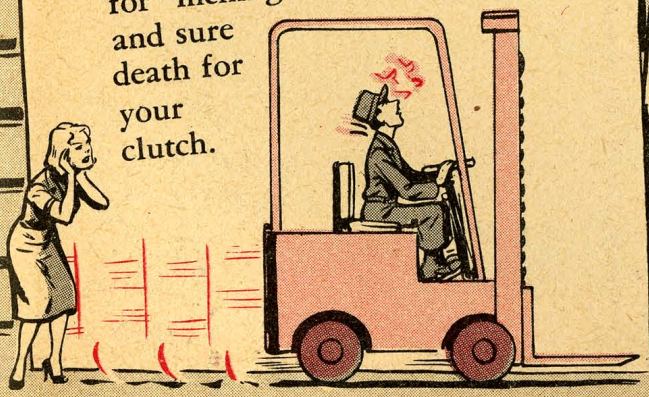

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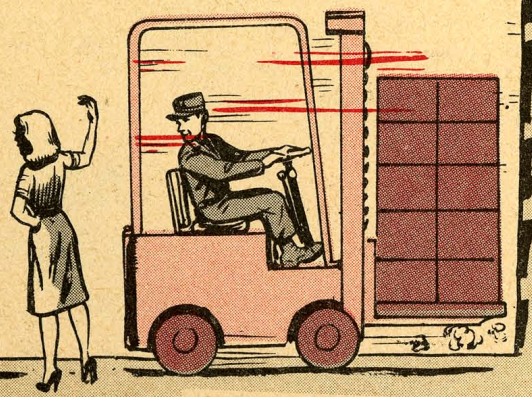

ENGINEERS

SGT DOZERS

DIRT-STIFF CLINIC

SHOVEL OPERATORS'LL

DIG

Trying to make a mole-hill out of a mountain when shoveling, loading, hauling and dumping? Then here are some things to keep in mind that'll make your job easier and help you take better care of your equipment.

Most people think it's a simple job to use a shovel on a pile of dirt and load up a steady stream of trucks. Not so. Just like everything else, there's a best way of doing things.

One important part of any leveling job is the positioning of the shovel. You want to keep the swing as short as possible.

The shorter your carry to the dump truck, the more efficient your operation'll be. First of all, keep in mind that you should load over the back of the truck. Take a look at Fig. 1 and see how your shovel's tracks are parallel to the bank of dirt it's moving. With the shovel located in this position, the trucks can wheel right in, take on the load, and move out without having to back up. Then another truck can move into position with little or no lost time.

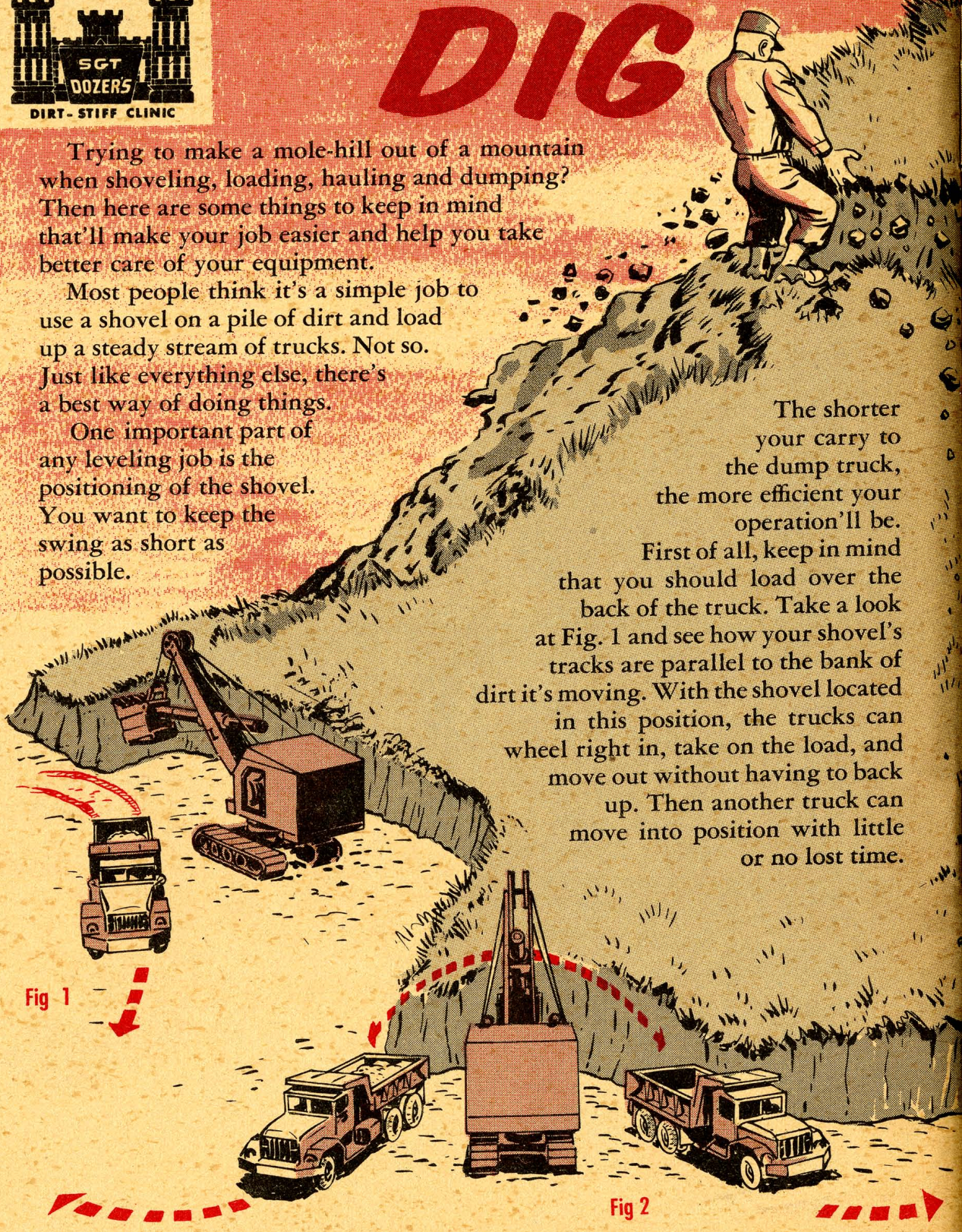

Fig 1

Fig 2

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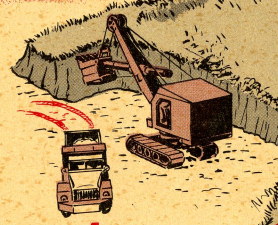

Fig 1

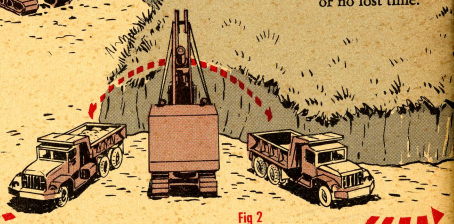

Fig 2

In Fig 2, the bank juts out and your shovel's tracks are not parallel to the bank. In this operation, the trucks have to back in to take on a load, but there's room for two trucks to be in position at the same time. So, while one's being loaded, the other's moving into position. All the shovel operator has to do when he finishes filling one truck is swing his shovel to the opposite side and load the other one.

By using these two methods, you'll not only be doing an efficient job and making the most of your time, but you'll also be able to keep the area clean and reduce the need for graders and dozers.

As a shovel operator, you have a lot to do with preventive maintenance on a dump truck, too. Yep, if you dump a dipper full of dirt into a truck when the dipper's too high above the truck, you're liable to break springs or axles or damage the truck beds. Fig. 3 shows the right way and the wrong way of loading a truck.

And another thing . . . never swing a loaded shovel over a truck cab—bring it in from the rear.

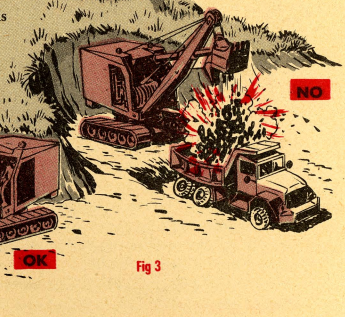

Fig 3

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Fig 3

Don't be half-safe—never park your shovel—or any vehicle—near the edge of a bank that might give way.

Your friends may not tell you, so look at Fig. 4 for what **not** to do. Your machine might go tumbling—and take you with it.

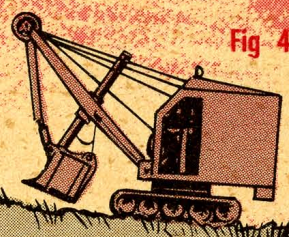
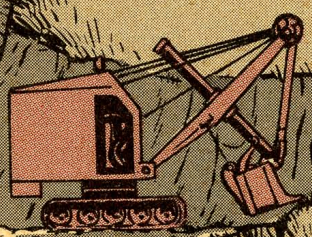


Fig 4

NO

Now, shift your blue eyes to Fig. 5. The guy running that shovel is really asking for trouble. A good operator knows better than to operate or park under an overhang. There's not much holding those tons of dirt. If the material should let go or cave in, the operator would be flattened and his machine could get busted up.

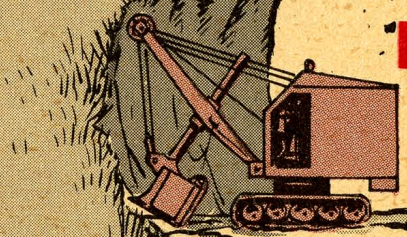
Fig 6

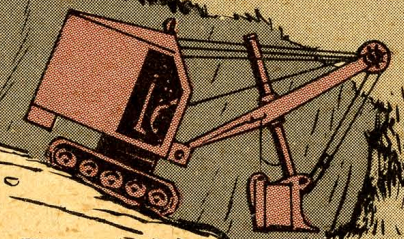


OK

Fig 5

NO





NO

Fig 7

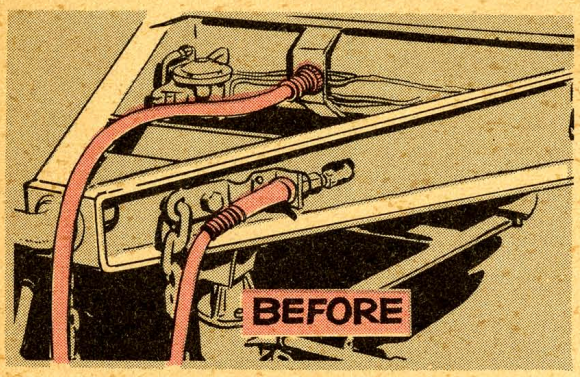
Another mistake operators sometimes make is working into a pit on a downhill grade like in Fig 7. You might not have too much trouble in dry weather, but should the rains come, that pit'll soon look like a lake.

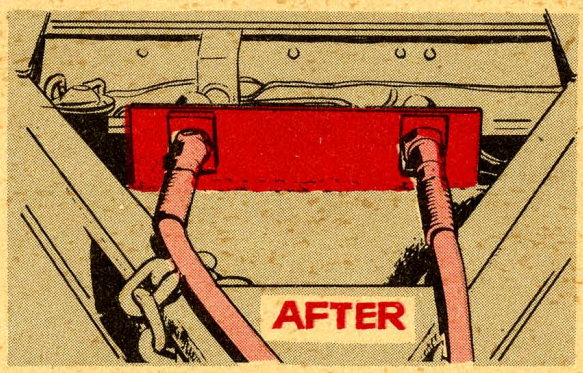
Besides building your own swimming pool as you go along, you're using the shovel wrong. It's not made to work downhill—and it's not designed to work uphill. Be on the level all the time, like in Fig 6.

So, plan your job and you'll get it done faster and easier, and you and your equipment'll come through with less wear and tear.

WHOLE, NOT HOLEY HOSE

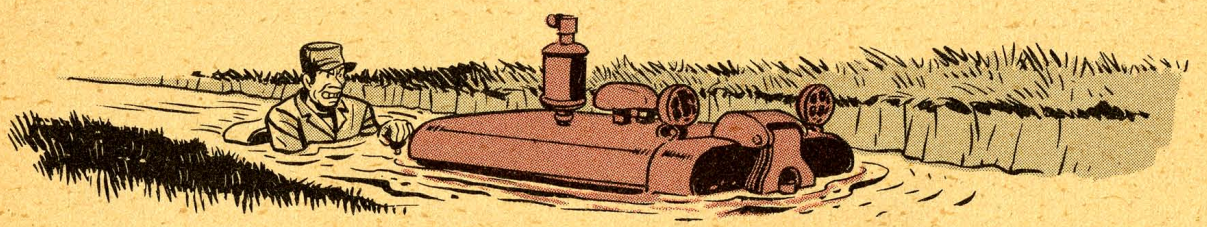
Sure shouldn't be any more trouble with those rubber air hoses on the M200 trailer—not if you've done what MWO Eng 9057-1 tells you to do.





The MWO (it came out many reveilles ago) raises the hoses so they don't get wedged between the trailer draw bar and the bumperettes of the prime mover when you back up.

TAKE THE HIGH GROUND



When you're leaving your piece of heavy equipment for the day, make sure you've parked it in a high, dry spot where the rain can't form a pool around it. The reason this comes to mind is because of what happened to one unit located down along the southern coast.

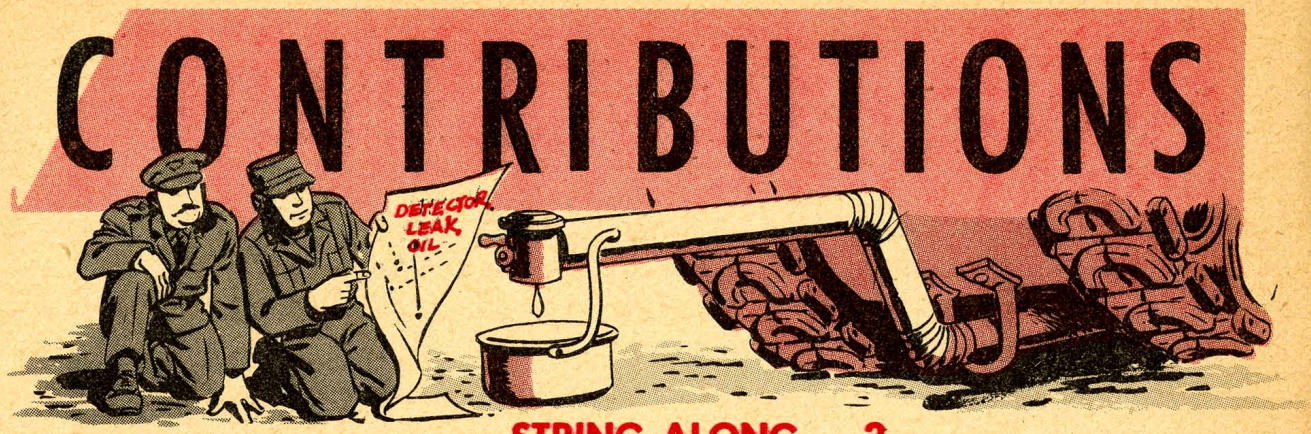
One of the operators took a D8 tractor down into a pit where a shovel was working to get fuel. (The fuel drums were down in the pit handy to the shovel.) After fueling the tractor, he left it there for the night.

That'd probably been all right in most cases, but that was the night a hurricane came swooping along the coast. When all was said and done, all you could see of the D8 was its exhaust stack stickin' above the water that had filled the pit.

This same unit loaned another outfit a tractor only a few weeks ago to doze out a trench. They got the trench dug all right, but they left the tractor in it the evening they finished. Along came three days of rain, but this time the water was only up to the seat cushions.

So, you see, smart operators park their equipment on high ground. Keep this in mind and you'll be classified as a smart operator, too.

CONTRIBUTIONS



STRING ALONG---?

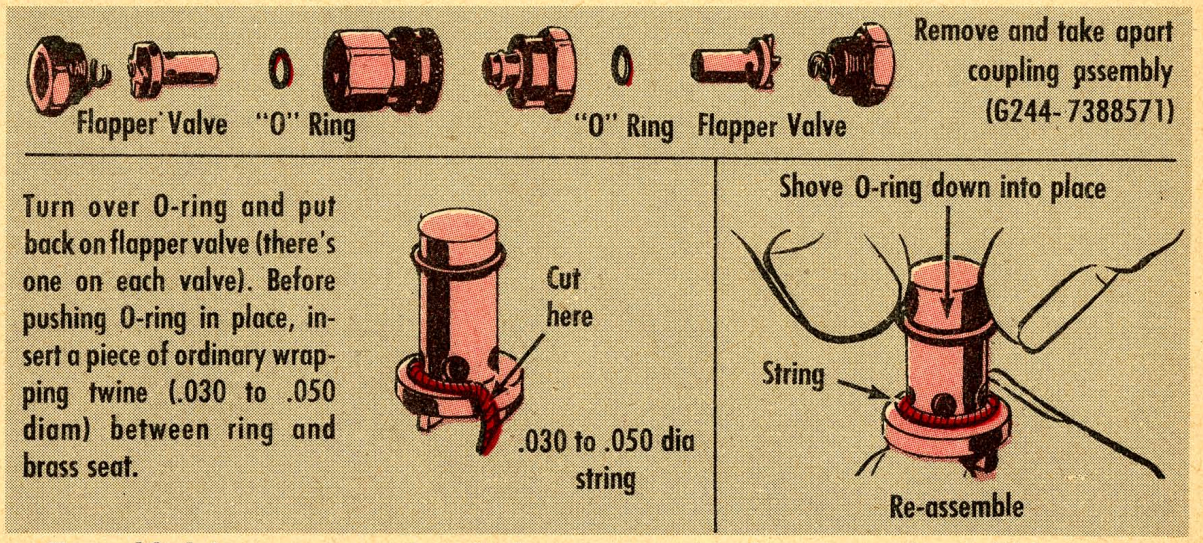
Dear Editor,

After the power pack on a medium tank has been pulled a few times, you may find leakage starting in the main engine fuel line quick-disconnect coupling. When it's disconnected, that is.

The leakage comes from deterioration of the flapper valve O-ring gasket.

This O-ring isn't listed in the SNL's and can be mighty hard to get your hands on—in some field situations, at least.

When no replacement's available, we find the following fix takes care of the problem.



For added insurance against leakage, a couple of extra touches will help: (1) before replacing the ring on the valve, smooth up the deteriorated side with an emery; and (2) while you've got the coupler apart, stretch the pressure spring a little—to give it more force for sealing.

OCMT Boyde C. McClintock
Fort Stewart, Ga.

(Ed Note—Your expedient's OK in a pinch, but only in a real pinch. Can't string along with it unless you just can't get the repair kit that's designed for that coupler job. It's Ord Stock No G244-8720219.)

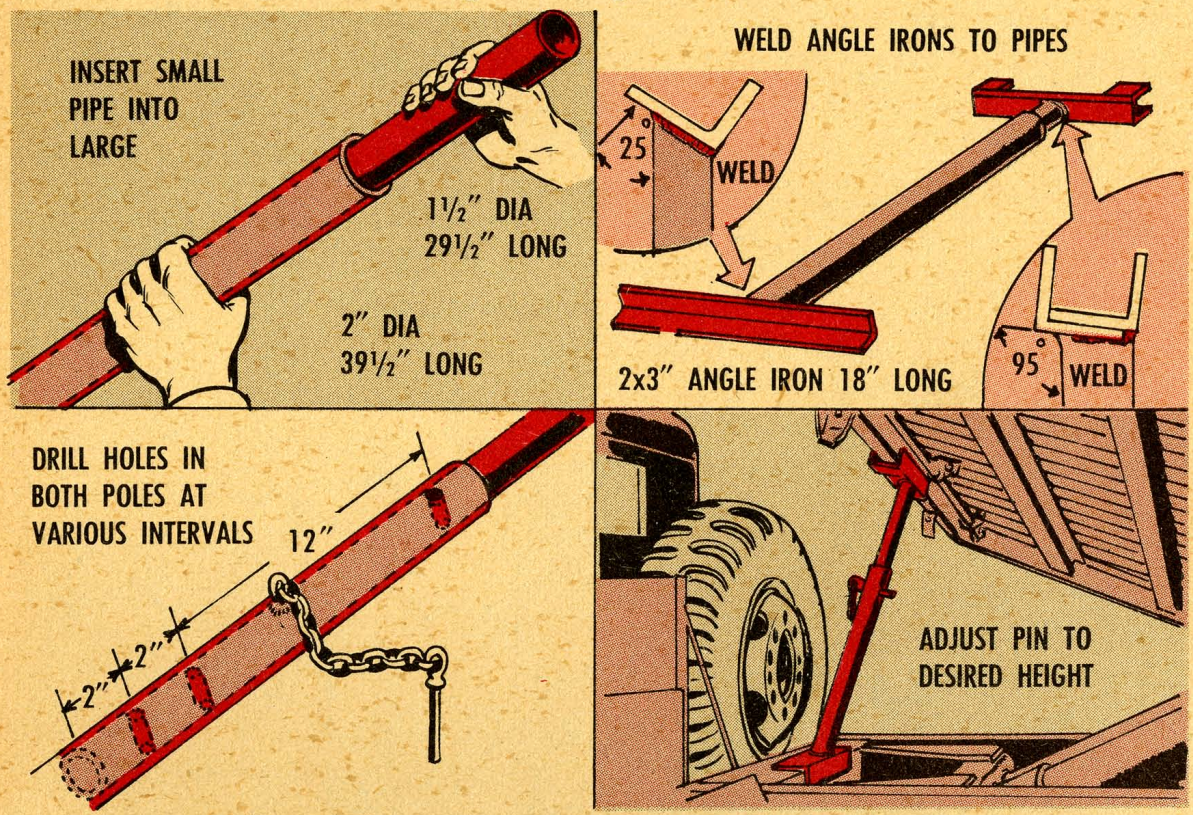
DUMP BRACER

Dear Editor,

Working under the dump body of your dump truck can get mighty dangerous, especially if the safety braces can't be raised into position to hold that body. There is always the chance that the body'll decide to come down—and you can see what would happen to a guy working under there if he had no safety braces in place to hold it.

Now, the question is—when is it that you can't use the safety braces? The answer—when you can't raise the body high enough to pull those braces into place . . . like when you're working inside a shop with a low ceiling that limits the dump body height.

We've made up the following fix to stop those accidents:



Now, when a guy runs up his dump body, he can put this safety gadget under the body so the base is resting on the subframe cross member and the other end is resting against the underside cross sill of the body. Raise or lower the dump bed to provide a snug fit for the safety gadget, so it won't slip and maybe crown a guy.

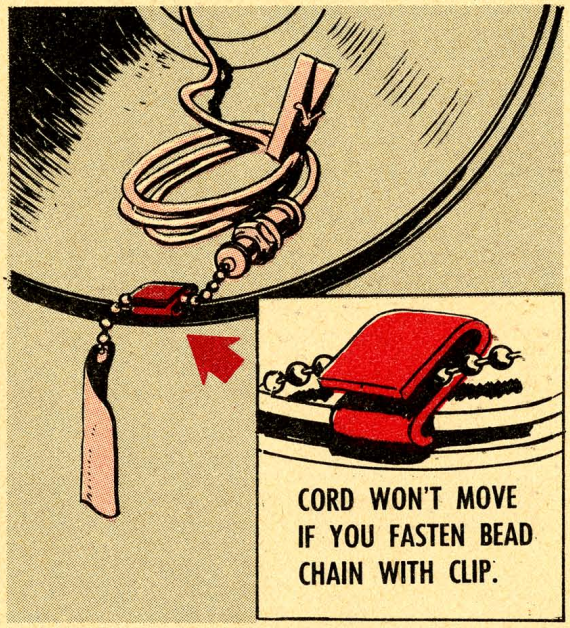
Mr. Arlo P. James
Fort Ord, Calif.

(Ed Note—When you've got special local conditions like you describe, this Safety-First extra should do the trick.)

CLIP FOR YOUR PLUG

Dear Editor,

You had a good idea in Issue No. 46 of PS Magazine—the one about clipping a clothes-pin on the Nike booster igniter cord so's the cord won't hang across the nozzle. We took the idea a step further.



First . . . we got a sheet of aluminum (Ord Stock No H011-0802250 gets you 3-sq ft worth), then we cut out some strips — ½-in by 3-in — and formed S-shape clips. We were all set once we fastened the bead chain by slipping the clip between the shroud and the nozzle. We made enough clips for every missile in the battery, naturally.

Now the cord won't move when the rail is raised and the red flag is always in plain sight.

MSgt L. J. G.

(Ed Note—Looks good to us, but don't forget to file the rough edges of the aluminum strips to save wear and tear on your fingers.)

TARP HOOKS

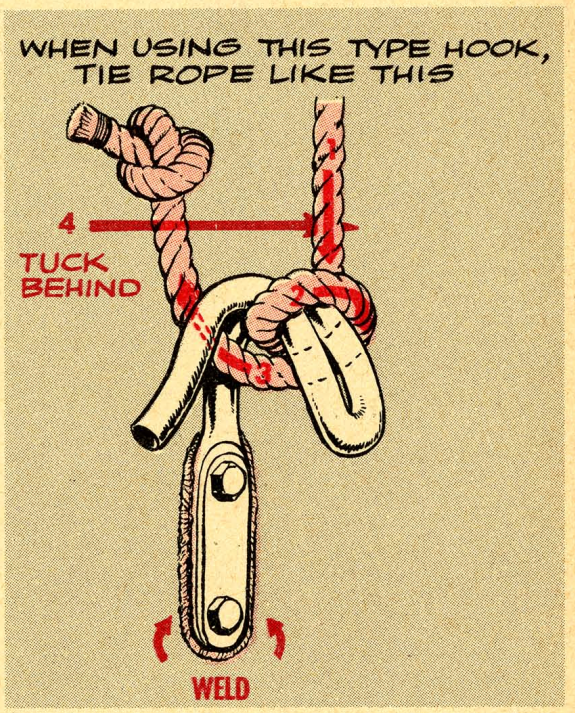
Dear Editor,

I've had lots of failures on the GMC M135's and M211's, where the hook, tarpaulin lashing, G749-7064246 breaks at the upper rivet hole.

We find that running an inch of electric weld bead on each side of the hook above the hole will prevent this.

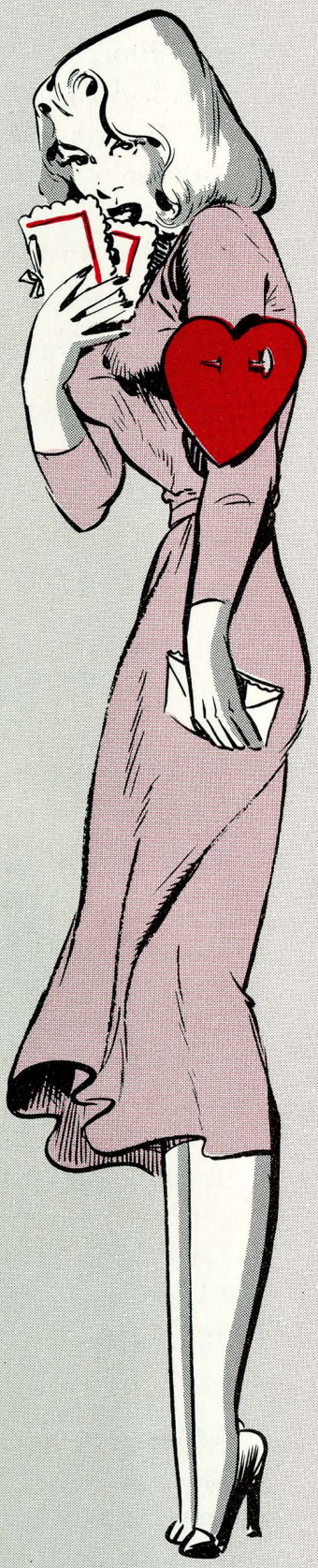
Or, if the hook has already broken, we replace it with the Dodge hook, G741-7032641, which is made of stamped metal and is much stronger. These hooks are still holding for us.

WO Robert B. Phillips
Jefferson Barracks, Mo.



(Ed Note—That Jemmy hook is inherently weak at the rivet hole, but have you tried to get the "new" hook (Ord Stock No H017-0587499) listed in Group 1810 of Ord 7 and 8, dated July 55? The new hook is much stronger than the ol' one.)

Connie Rodd's BRIEFS



A dose

You men who've been looking all over for a stock number for shock absorber fluid had better jot this where you'll find it. It's now called Castor Oil, technical: heavy, shock absorber. FSN 9150-261-7456 will get you a gallon of the stuff.

Paint, right, the

The right paint for interiors of combat vehicles is Enamel, synthetic, gloss, white. FSN 8010-298-2286 gets you a quart; FSN 8010-286-9087, a gallon. Note the change in nomenclature and stock numbers in the "OD'S OUT" article, PS 47, page 32.

Got a signal?

You, who've been in a dither tryin' to figure out what the M185 and M238 trucks are, can relax. They're Signal Corps Repair Shop Trucks. The M185 is the 2½ ton, 6x6, M109 with load applied, and the M238 is the M220 with load applied. TB Ord 444-11 and C1 gives you the dope on this.

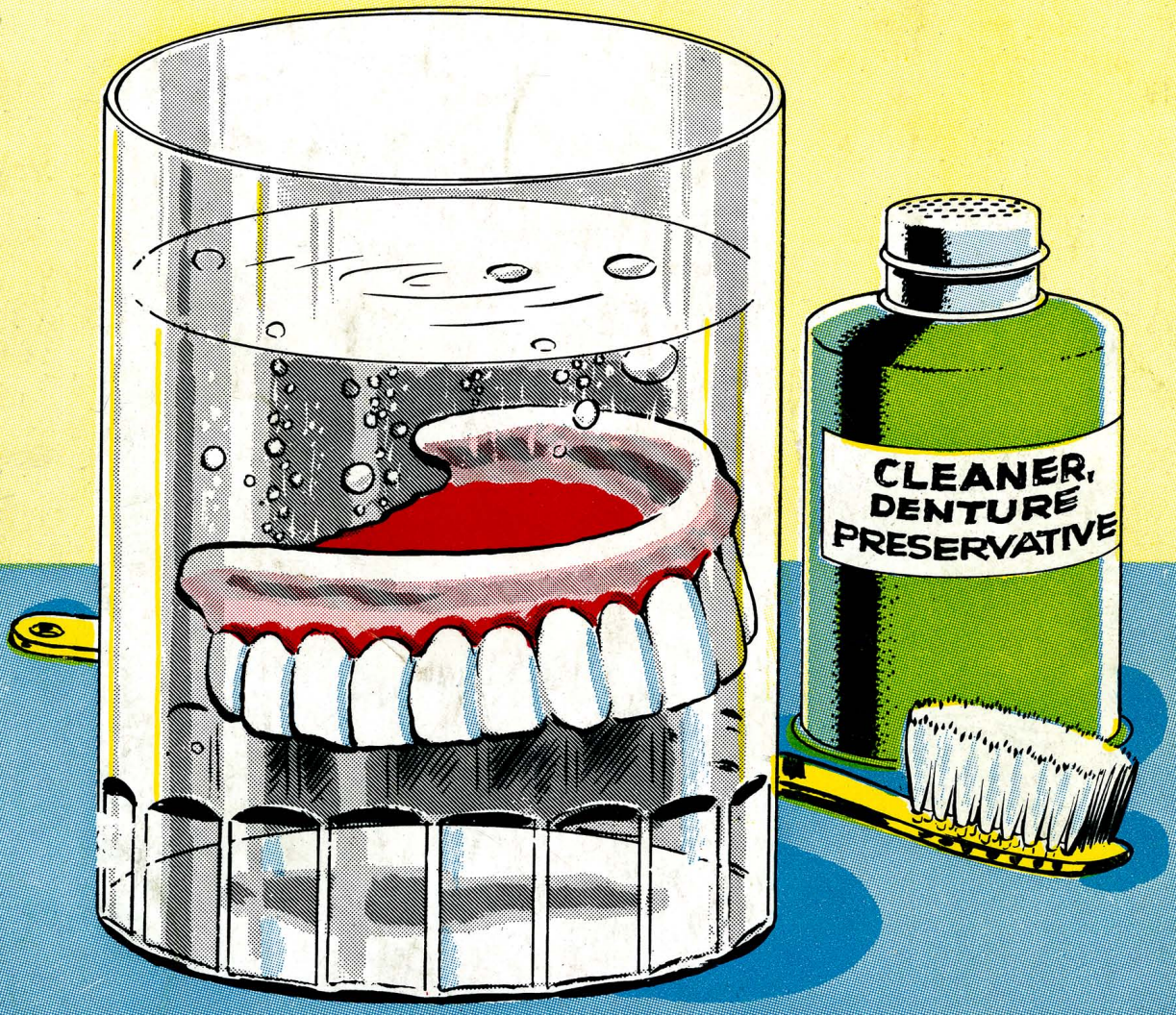
For M41 tankers

You light-tank crewmen (M41 and M41A1) can still get copies of that special light-tank edition of PS. It's PS Issue No. 14. Just send Sgt Half-Mast a card telling him how many copies you need.

M96 fix

Bearings 700015 and 700026 are probably to blame if the M96 telescope mount on your M44 self-propelled howitzer is on the blink. Some of 'em may not have been lubed during manufacture. For good operation, have Ordnance lube those bearings. If they're shot, Ordnance will replace 'em.

MAINTENANCE INSURES PERFORMANCE



On Your Army Equipment, Too...